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This thesis involves the creation, organization, and analysis of digital archaeological data within a site Geographic Information System and Microsoft Access relational database. The data were the result of excavations at the Blandwood Mansion property in downtown Greensboro, NC, during the summer of 2008. The creation and implementation of the site GIS and custom relational database were discussed with a focus placed on increasing the efficiency of data storage and the speed at which data can be analyzed. The archaeological database was developed for the project and its creation and purpose were discussed with reference to the user experience.

The specific methods of data analysis performed within the study include artifact dating via mean ceramic dating, equation based flat window glass dating, artifact distribution analysis using density mapping, and 3D soil layer modeling using statistical kriging. A number of other historical resources including Sanborn Fire Insurance maps and photos were integrated into the GIS to better understand the results obtained by the methods stated above. The final chapter briefly discusses some key insights provided by the study and recommendations of future archaeological exploration within the site.

ARCHAEOLOGICAL DATA MANAGEMENT AND ANALYSIS
AT BLANDWOOD MANSION

by

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APPROVAL PAGE

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CHAPTER I

INTRODUCTION

Thesis Scope and Purpose

The topics covered within this thesis were quite varied in nature and were the results of two years of archaeological work at Blandwood Mansion in downtown Greensboro, North Carolina. An archaeological excavation led by Dr. Linda Stine from the University of North Carolina at Greensboro was held within the Blandwood property for a six week period during the summer of 2008 and the data resulting from the excavation are at the center of this text. While an extraordinary amount of work has resulted from the 2008 excavation, this thesis outlines the steps taken to prepare for the excavation as well as to establish methods for post-excavation data handling and analysis. The scope of the text is largely methodological in nature with very little emphasis placed on the interpretation of the methods' results beyond the assessment of their effectiveness and quality. To adequately begin a full interpretation of the archaeological data resulting from the excavation within the broader history of the site is far beyond the scope and the purpose of this text.

The goals of the author were largely logistical in nature with a heavy emphasis on improving the methods by which archaeological data are created, organized and analyzed utilizing the modern tools of Geographic Information Systems and electronic databases. The methods of data handling and analysis used within the study were created to aid in the storage

of data, set standard practices for data creation and organization, and to increase efficiency for some post-excavation analytical processes.

The methods covered within this thesis are broken into spatial and artifactual topics. Within the spatial topics, the creation and implementation of a site Geographic Information System (GIS) is discussed as well as the development of a three-dimensional model of soil layers within the excavation study area. The artifactual topics covered include discussion on the creation of a custom archaeological database, automated artifact dating methods, and artifact density analysis.

Each of these topics is covered in some detail throughout the next four chapters of the text. Chapter two includes a brief discussion of the source material behind the methods and theories incorporated into the text as well as a number of ancillary sources intended to be helpful to readers for the future use of the resources created throughout the project including the site GIS and artifact database. Chapter three focuses on the development of the site GIS including discussion on its use in preparation for excavation, sources of the data layers held within the GIS, and the relationship between the GIS and Blandwood Database. Chapter four includes discussion on the initial planning and creation process of the Blandwood artifact database including the concepts behind the relational database model, the development of the user interface, and the artifact organization methods utilized within the database. Chapter five includes discussion on the analytical processes both built into the artifact database as well as the site GIS. These models include automated artifact dating using the Mean Ceramic Dating and flat glass dating methods, the generation of artifact density maps for distribution analysis, and the creation of three-dimensional soil layers using statistical kriging. Finally, chapter six briefly highlights a few examples of how the results from the previous methods can be interpreted

within the broader context in order to learn more about the unseen history of the Blandwood property. It should be noted again that the results and interpretations included within chapter five are only a few of the many possible results that still lie beyond the scope of this paper. Indeed, the history of the Blandwood property is rather complex and a full analysis of all of the excavation data are needed to begin to understand how the artifactual remains truly speak to Blandwood Mansion's unrecorded past.

Blandwood Mansion History to Present

The beginning of the Blandwood Mansion's history started with a man named Charles Bland around 1795 when the first structures were built on the property and a farmstead was established. Little is known about this settlement period or the structures that were constructed on the property by Bland (A. Poteat, pers. comm.). It was assumed that a main house with an unknown number of outbuildings was constructed and a key objective of the most recent excavation on the property was to find evidence of such buildings. One of the only lasting remains of Charles Bland's ownership of the property was the naming of the property Blandwood as it is today.

In 1822, the house and property were purchased by a Henry Humphrey who expanded the home from four bedrooms to six. Shortly afterward in 1827, the property was sold to John Motley Morehead, a future governor of North Carolina (Blandwood Mansion website 2010, <http://www.blandwood.org>). A major remodeling project was undertaken by Morehead between 1844 and 1846. Morehead contracted Alexander Jackson Davis, a prominent New York architect, to redesign the main house and dependencies in the Italianate style visible today. (See figure 1.1) The Morehead family consisted of John Morehead and his wife Ann along with their

eight children (Edmunds 1976). An 1850 slave census also recorded the ownership of 37 enslaved African workers who are presumed to have lived and worked on the Blandwood property although very little is known of their history and relationship with the Morehead family (A. Poteat, pers. comm.).



Fig. 1.1. Historic photograph of Blandwood Mansion. Shown in the Italianate style by A. J. Davis before the property was altered by the Keeley Institute. Courtesy of Preservation Greensboro Inc.

After the death of John Morehead in 1866, the Blandwood property was passed through the Morehead and Gray families until the turn of the 20th century when the property was finally purchased by the Keeley Institute. After the purchase of the home by the drug and alcohol rehabilitation hospital, another series of large changes began within the architecture of the

property. These changes are discussed later in chapter three using Sanborn Fire Insurance maps of the property dating back to 1907.

Initial archaeological excavation within Blandwood began in 1980 and was led by Russell Skowronek with Archaeological Research Consultants. The excavation focused on identifying the extents of the original dependency foundations for the purpose of historic reproduction. Multiple foundations were identified on both sides of the house and dependency buildings were reconstructed to model the original structures of the Italianate style (Skowronek 1980). In the summer of 2008, the second and most recent excavation was held within the backyard of the home directed by Dr. Linda Stine with a field school of students from the University of North Carolina at Greensboro. The excavation included a series of exploratory shovel tests and seven excavation units intended to clarify known and suspected features within the site. The identification of any outbuildings or activity areas was of primary interest as well as the search for any artifactual evidence remaining of the African slaves recorded in the 1850 slave census.

CHAPTER II

LITERATURE REVIEW

Introduction

An overwhelming amount of research and preparation went into the making of this paper and the wide variety of contents made for an even wider range of material used within the study. This study was interdisciplinary in nature and sources used included the fields of geography, archaeology, statistics, and computer science. In this section, literature holding the theoretical framework of the study's many different methods will be discussed as well as some other less scholarly sources which the reader may find helpful.

Database Development

The ground-up development of the Blandwood Database constituted one of the largest tasks within this study. The first step in the development of the database layout the tables and relationships which would form the foundation of the relational database. This topic was lightly covered in chapter four, but for a more in depth study of the history and theory behind the relational database model, innumerable texts are available. For a general description of the relational database model and a brief history of its use within geographic information systems see Clarke (2003) and Chang (2008). Other books that describe the relational database model in archaeological contexts include Lock (2003) and Conolly (2006). Lock was especially helpful in the early stages of database structural planning and helped to avoid a number of simple, but costly mistakes. Conolly's *Geographic Information Systems in Archaeology* proved to be an

outstanding source for nearly every archaeological task within this study including various database structures and the application of digital data within the field of archaeology as a whole.

A large part of the Blandwood Database's final tabular structure and content was directly influenced by three different archaeological databases found openly on the web. The most influential of these databases was the DAACS (Digital Archaeological Archive of Comparative Slavery) database developed in part by Dr. Jillian Galle at the Thomas Jefferson Foundation at Monticello. The database's contents are openly searchable through an online interface and detailed information about the database structure was made available through their webpage including database structure illustrations, table structures, and detailed attribution information. The database relationship structure of the DAACS database was used as a rough model for the Blandwood Database and was modified as needed to accomplish the tasks and design qualities intended for the new database. One reason the Blandwood database was initially created was the fact that the DAACS database was not openly distributed so its use for the Blandwood excavation was not an option (DAACS website 2009, <http://www.daacs.org>).

The DAACS database proved to be one of the most useful sources for attribute information within the Blandwood Database. In order to save time, reduce errors, and improve uniformity within the database, a large amount of descriptive attribute data were preloaded into the database forms within dropdown menus to be used during artifact data entry. While it would have been extremely tedious to add all of these attribute keywords to the database, this step was aided by tables containing previously compiled attribute list from the DAACS database. Without these attribute tables being available online, the resulting database would not have

been nearly as robust as it now is (DAACS website 2009, <http://www.daacs.org/aboutDatabase/structure.html>).

The complete list of median ceramic dates (MCD) used within the database is the same as that used within the DAACS database and was available online. According to the DAACS website, the MCD list was compiled using three key archaeological sources well known in the field of Historical Archaeology. These sources included Nolë Hume (1969), South (1977), and Miller (2000). These three sources were continually referenced during the creation of the database for artifact cataloging purposes as throughout the physical artifact cataloging process. South was especially helpful for the proper use of MCD calculations within the database since he was its inventor (discussed further in chapter 4).

During the design phase of the Blandwood database, two other archaeological databases were analyzed for their usefulness and internal design. The first was the *ArchWizard* database developed at Brandon University in Manitoba, Canada as part of their SCAPE project (Study of Cultural Adaptations in the Prairie Ecozone) (SCAPE website 2008, <http://scape.brandonu.ca>). ArchWizard was developed primarily for the analysis of prehistoric assemblages and offers a very well developed method of retaining spatial accuracy through automated point coordinate calculations for piece plotted artifacts. For artifact categorization, ArchWizard uses keywords to describe and separate artifact types through a complex user interface. Unfortunately, the specificity and detail of the database makes it very inflexible in regard to context placement in the field and the ease of use when entering data. The user interface itself was quite difficult to navigate and could be quite overwhelming at times. Of use within the ArchWizard database was an extensive breakdown of lithic artifact attributes and divisions that were largely missing within the DAACS database artifact tables. Many of these

attributes and divisions were incorporated into the Blandwood Database for the detailed entry of faunal remains and lithic artifacts.

The third database to be analyzed was the SHARD database (Sonoma Historic Artifact Research Database) developed by the Anthropological Studies Center at Sonoma State University (SHARD website 2009, <http://www.sonoma.edu/asc/shard>). The database implemented similar function group characteristics for artifacts, but had very limited space for detailed artifact attributes which was largely confined to large text fields. It was obvious that the database was created for quick entry of limited quantities of data with an emphasis on artifact dating. The database also held only references to spatial contexts with no areas for the entry of context information within the database.

After comparing the three databases, a list of design criteria was amassed to guide the development of the Blandwood Database. The structure of the database needed to be both logically structured and comprehensive enough to hold all of the archaeological data that would be amassed throughout a full excavation. Also the user interface had to be easy to navigate, be logically structured, and provide as much error protection as possible without sacrificing the flexibility of its content. The user had to be able to quickly input data from catalog sheets with as little decision making and interpretation as possible. An effective layout was especially important when data entry would be performed by users that were not trained archaeologists such as volunteers and students.

To complete the automation within interface design, VB programming was used. There were many books and tutorials on Access database design available for reference with varying degrees of depth and content. Groh et. al (2007) was chosen as the main reference for design considerations and Microsoft Access help due to its simple language and its extremely broad

range of content from beginner to very advanced functions. With this book as a reference and guide, the user interface was created with relative ease. The Visual Basic coding for the user interface was relatively easy and most methods used were discussed either within the Access 2007 Bible or by Davis (2000). The Access 2007 Bible also provided valuable help in the creation of the database queries used for automating MCD and flat glass dating within the user interface.

Mean Ceramic Dating and Flat Glass Dating

Both Mean Ceramic Dating and flat glass dating calculations were automated within the database to speed up data analysis capabilities and provide instant results from data entry. MCD dates for ceramics have become a staple for nearly all historical excavations and have been well tested though far too many investigations to include here. The equation used within the database is South's original equation published in 1977 (South 1977) and the median ceramic dates he established made up part of the larger median ceramic dating table used within the database as mentioned above.

Less well known than the MCD dating technique was the equation based dating of flat window glass. A number of archaeologists have developed equations over the past 40 years that attempt to estimate the production year of glass shards based on its thickness. Four such equations were researched as candidates to be used within the database with varying results (Ball 1983; Moir 1987; Orser; Roenke 1979). The equations created by Ball (1983), Roenke 1979), and Moir(1987) were all tested using the Blandwood data and Moir's equation was clearly the better choice. While Ball's equation had been seemingly well investigated in articles such as by Rivers (1999), Moir's equation was better documented with defined variables which can affect

the results. For an example of how the formula was applied on another excavation, see Day (2001).

Spatial Analysis

The methods of spatial analysis used within this study were chosen for their ability to answer specific questions left after the physical excavation was complete. The method of artifact density calculation was instrumental in the recognition of distribution patterns of artifacts over the site while kriging provided the ability to estimate the thickness and elevation of unexcavated soil layers to better understand the history of the landscape itself. The least technically challenging of these two methods was the generation of artifact density images and much information is available for reference on the subject. For an in-depth discussion of the statistical principles behind the generation of the density maps in chapter five, see O'Sullivan (2006) and Conolly (2003). Conolly's description is especially well suited for archaeological research. A much less technical description of density images was provided by ESRI within *The ESRI Guide to GIS Analysis* which was written specifically for the software used to generate the Blandwood density maps. Within this guide, the creation and interpretation guidelines are explained in common language as well as the limitations of the calculated values (Mitchell 1999).

The theory and practice behind producing correctly calculated soil layers using kriging was quite a bit more demanding than the density calculations. For texts outlining the statistical principles behind the complex interpolation method, again O'sullivan (2006) and Conolly (2003) provide simplified explanations of very complicated equations while Haining (2003) provides a much more in-depth discussion. Within the study, kriging was also compared to Inverse Distance

Weighting which is again discussed by O'Sullivan (2006) and Conolly (2003). The kriging surface calculations were performed using the Geostatistical Analyst extension for ArcMap. To better understand the many functions and advanced settings included within the software, ESRI's *Using ArcGIS Geostatistical Analyst* acted as a guide to develop the most accurate surface models available (Johnston et al. 2001). Especially helpful for the assurance of data accuracy were detailed statistical error measurement instructions provided within the guide including short explanations of the error values (Johnston et al. 2003).

CHAPTER III

SPATIAL DATA MANAGEMENT

Introduction

In order to understand the full spatial context of the study area, a method of spatial control and recording was utilized through the development of a site specific Geographical Information System, or GIS. The GIS contains layers of data that, when combined within a site map, served as an incredible tool for recording, analysis, and education. For purposes of clarity and re-creation, all of the steps and technical attributes of the GIS will either be explained here or have been documented within the layer specific metadata.

GIS Creation and Documentation

The Blandwood Mansion site GIS was created using *ArcGIS 9.3*, an industry standard software for spatial data storage and analysis. The software itself was provided by the UNCG Geography Department along with licenses for other software used within the study including Microsoft Access, Visual Basic for Applications, and Adobe Illustrator, as well as Spatial Analyst, 3D Analyst, and Geostatistical Analyst extensions for ArcMap. The specific use of each program will be outlined in further detail later.

The first steps in creating the site GIS included the choice of a geographic coordinate system in which to display data and help ensure consistent data accuracy. The geographic

coordinate system chosen for the GIS was *NAD 1983 Harn State Plane North Carolina FIPS 3200* based on a Lambert Conformal Conic projection due to the high regional accuracy, metric units, and versatility of the State Plane system. While projection accuracy is not a main concern due to the small size of the study area, all data were projected to maintain data consistency and for use in a larger study area in the future.



Fig. 3.1. Map of site datum points.

In order to place the contents of the site GIS within a real world coordinate system rather than an arbitrary coordinate system, two datum points were set up on the site perimeter.

David Boutwell from the City of Greensboro assisted us by creating the two datum points using a high accuracy GPS receiver. The first datum point was located on the concrete sidewalk to the Southeast of the site on South McGee Street. (See Fig. 3.1) Its coordinates were North 257579.1189, East 537929.0738 at an elevation of 254.0233 meters above sea level. The second point was placed in the center of the concrete road island to the Southwest of the site where South McGee Street meets South Edgeworth Street. Its coordinates were North 257564.0315 East 537873.5926 at an elevation of 252.0147 meters above sea level. Both datum points consist of a large galvanized nail that was driven into the concrete until flush with the surface. The base elevations seen above were then taken from the head of each nail.

Once the datum points were identified and programmed into the Total Station, another datum point was created just to the Northwest of the Oak tree in the back yard to be used as the main location of the Total Station for point recording. From this point nearly the entire site was within view of the total station except for the front yard and parts of the side yards. Other datum points were later created to assist in shooting points within these blind areas including the front yard. A Topcon laser Total Station was used on site to perform all spatial data gathering and to lay out site features that were created beforehand in ArcGIS. The station was set to record in high accuracy during the duration of its use on the site so an accuracy of within 1cm was expected granting no user error.

In preparation for archaeological fieldwork, most of the features used for excavation were created within ArcGIS in order to retain uniformity to a site grid system. The grid system itself was created in ArcGIS using a free software extension called *Hawth's Tools* which had built in functions for creating points, lines, and area features for use in scientific sampling. The extents of the site were chosen arbitrarily so that all of the possible study area was covered and

enough space was allowed around the edges to act as a buffer for unknown circumstances which may require expansion. Once the extents were chosen, a grid was created within the area that used one meter square quadrants. The grid was oriented to geographic north and the Y axis was 49 meters long while the X axis was 60 meters long thus making the grid area equal to 2,940 square meters. Based on this one-by-one meter grid, a number of other grid layers were created including a simplified ten by ten meter grid and more detailed fifty centimeter grid. All of the proposed excavation unit and shovel test pit locations were plotted on this grid to keep consistent orientation and spacing. These layer files were originally created as projected shapefiles and were then imported into the site geodatabase.

The personal geodatabase model, created by ESRI, was chosen to structure the site GIS and house the spatial data created during the excavation. The personal geodatabase model had a number of advantages over the older file structure of individual shapefiles or coverage files used by ArcGIS in the past. The database was modeled on the relational database model used by Microsoft Access and houses all of the data on a series of tables within a single database file with the extension *.mdb*. Because all data were held within one file, data corruption from file relocation and tampering can be kept to a minimum which is optimal for a multiuser environment. The geodatabase model also supports a host of other features such as topological rules, metadata handling, multi-user editing, and automated projection so that the accuracy and integrity of the data were well maintained. All files associated with the site GIS were eventually incorporated into the geodatabase if they were not originally created there. For a list of all layers within the site GIS, see Appendix A which includes the layer names, a brief description, and creation method.

Historic Maps (Spatial Reference and Analysis)

To gain a better understanding of Blandwood's historical landscape, research had been undertaken to find photographs, maps, schematics, engravings, and any other records that could shed light on the changing land use for the site. The investigations provided a number of historical photos and maps that proved to be invaluable tools for interpretation.

In order to georeference each map within ArcGIS, modern points of reference were identified that were available within all four Sanborn maps. After comparing the maps to modern aerial photographs of the area surrounding the Blandwood estate and taking the small size of the study area into consideration, the four corners of the existing main house structure were chosen to be used as the main anchor points of reference. While in most circumstances, reference points would be chosen that are much more widely spaced for maps of this scale, the area of interest did not extend beyond the boundaries of the Blandwood property, so the house itself served as the best historical reference point. Having the maps scale to the known corners of the house also served to test the accuracy of the overall map scale and helped with the comparison of the building footprints presented by each map. The resulting building footprints of each map and the discrepancies between them are illustrated in figures 3.2 to 3.6.

The earliest map available including the house location within the property was dated 1879 and was created by C.M. Ward. Published by F.W. Beers and Co. The map of Greensboro included building footprints of both the main house and outbuildings on the Blandwood property and proved reasonably accurate since the map was created "from survey records" as noted in the map legend. The Ward map included footprints for the main house and 7 other smaller buildings within the property. (See figure 3.2)



Fig. 3.2. 1879 building footprints from Ward map. Map published by F.W. Beers and Co.

In addition to the Ward map, four Sanborn Fire Insurance maps were identified from the years 1907, 1919, and two from 1925 (one from December and the other presumably from earlier in the year) that offer a uniquely detailed look into the structural makeup of the buildings on and surrounding the Blandwood estate. (Sanborn Map Database 2009, <http://libproxy.uncg.edu:2725>) Each map recorded not only the structure of the main house, but outbuildings that have been long destroyed and are largely unidentified. While the maps did not label the uses of the exterior structures, the materials in which they were built were recorded with surprising detail. Each map was also complete with a scale so each were presumed to have been drafted to scale, but when the georeferencing process was complete, considerable amounts of error were found within each map.

When the building footprints of the house are compared between the four Sanborn maps, discrepancies in proportion and size were identified that detract from the usefulness of the maps to some degree. The 1907 and 1919 maps were quite similar in their representation of the main house and outbuildings with regard to size and proportion, but had noticeable differences. For example, the distance between the main house and both dependencies were noticeably different in both maps. The 1907 map recorded a distance of approximately 8.5 meters (27.9 ft) between the main house and the western dependency, while the 1919 map recorded approximately 12.3 meters (40.3 ft), a discrepancy of nearly 4 meters. On the eastern side of the house, the 1907 map recorded a distance of 10.8 meters (35.4 ft) to the eastern dependency while the 1919 map recorded 14.3 meters (46.9 ft). The discrepancies between the two maps are most likely the result of error in the map creation process rather than error in the georeferencing process. Error on such a scale is not surprising since the maps were not designed to act as detailed building blueprints, but were used to record approximate size, relative relationship to surrounding structures, and other pertinent attributes of each structure for fire insurance assessment.

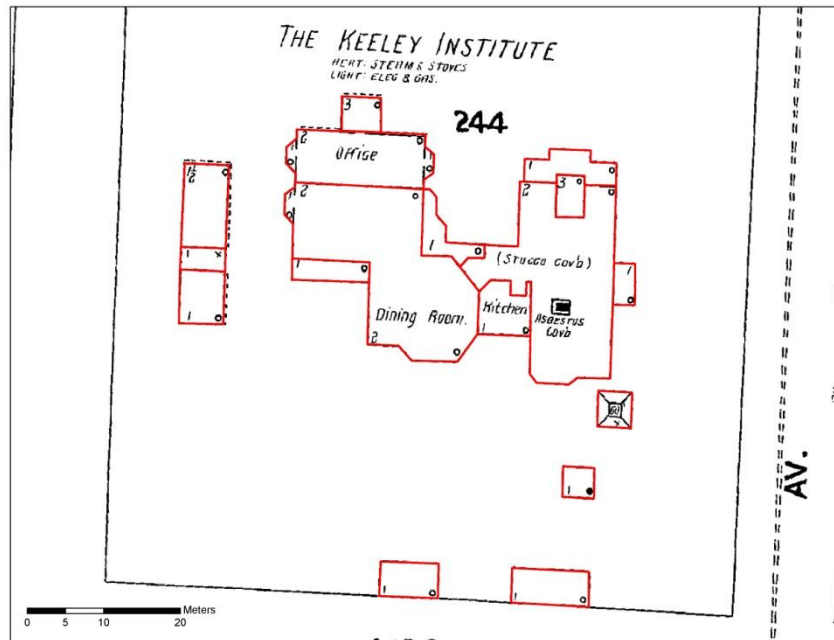


Fig. 3.3. 1907 Sanborn Fire Insurance map building footprints.

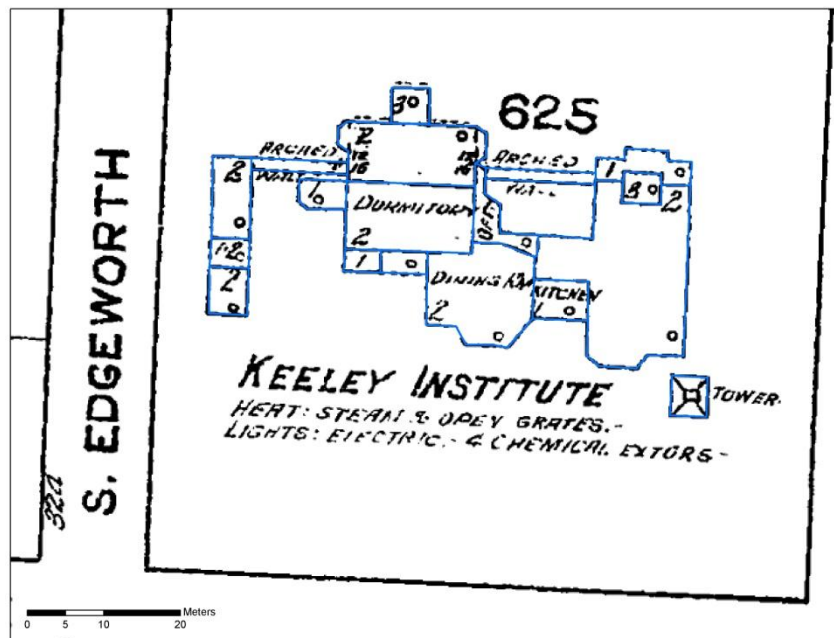


Fig. 3.4. 1919 Sanborn Fire Insurance map building footprints.

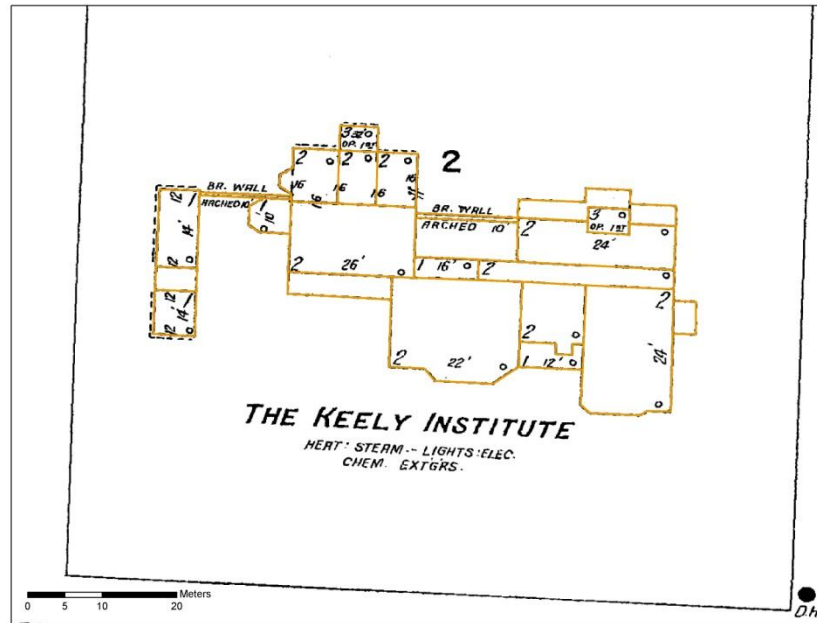


Fig. 3.5. Early 1925 Sanborn Fire Insurance map building footprints.

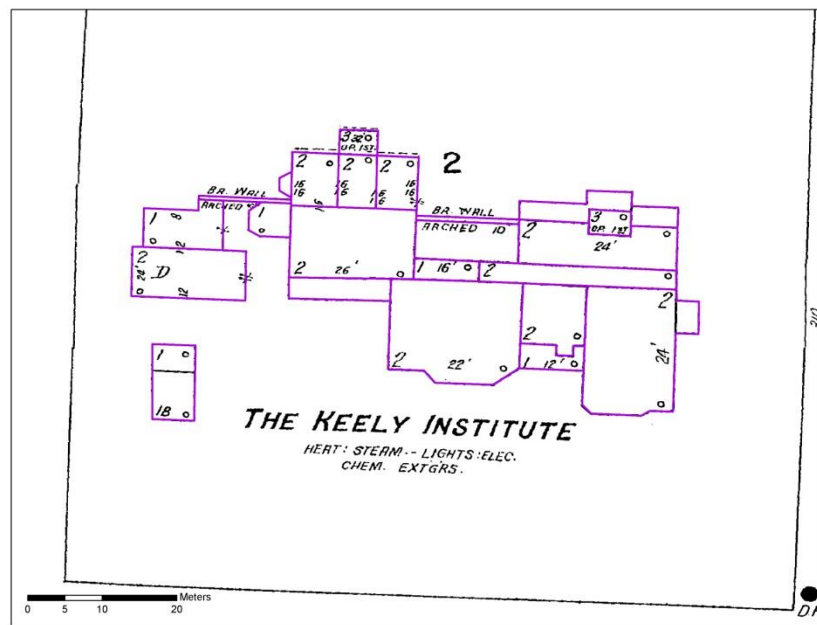


Fig. 3.6. December 1925 Sanborn Fire Insurance map building footprints.

The proportional error within the maps is most severe in the maps dating from 1925 in which the coach house addition and eastern dependency were shown to be much larger relative to the main house structure when compared to the 1907 and 1919 maps. As an example of the error between the three maps, width measurements of the eastern dependency's northern face were taken from each map resulting in the following: 1907: 12 meters, 1919: 12.5 meters, and 1925: 21.1 meters. It is obvious that the 1925 map either displays a major error in measurement during the map's creation or that the 1925 eastern dependency was substantially enlarged between 1919 and 1925, the later being much less likely.

As stated above, two maps with the dates 1925 were found in which the house was recorded, the first simply listed as "1925" and the second recorded as "Dec. 1925". The December map is nearly identical to the earlier 1925 map except for major changes recorded for the western dependency. The changes recorded by the 1925 maps point to the destruction and subsequent rebuilding of the western dependency as well as the addition of another building directly to its South. Figure 3.7 illustrates the difference between the footprints of the western dependencies in the 1925 maps. The earlier map showed a building with a rectangular shape and North/South orientation while the later map recorded a building with an East/West orientation which extended farther East toward the main house. Also of note was the addition of another building to the immediate South of the dependency which is no longer in existence. Presumably, the changes to the buildings were made after the first 1925 map was created, then an amended map was created in December of 1925 with the structural changes recorded.



Early 1925 Dependency Footprint

Dec. 1925 Dependency Footprint

Fig. 3.7. 1925 building footprint comparison.

Five other Sanborn maps were identified that do not contain drawings of the structures within the Blandwood property, but were instrumental in telling the story of the urbanization that eventually surrounded the farmstead. The other Sanborn maps dated from 1885 to 1902 and all have been included in figures 3.8 to 3.11 except for the years 1891 and 1896 where no changes around the property were recorded for those years. The maps illustrate how the land surrounding the Blandwood property changed from large tracts to the smaller urban lot present today.

The maps showed how the land around Blandwood Mansion was changed through time with the construction of roads and neighborhoods in areas that were once on the Blandwood

property. The 1879 Ward map showed West Washington extending through the front of the property, but was interestingly shortened in the 1885 Sanborn map. Since the Blandwood property edge was barely shown within the 1885 Sanborn, West Washington's omission can likely be deemed as a cartographic error. The next map dating from 1888, just three years later, displayed West Washington as it is today, being extended through the front yard. From the time West Washington was constructed sometime before 1879, the property and surrounding streets stay relatively unchanged until the end of the 19th century. The next major change surrounding the property was illustrated in the map dating to 1902 where Eugene Street was shown extending southward through the property to intersect with Walker Avenue and continue on to merge with the new Morehead Avenue. (See figure 3.10)

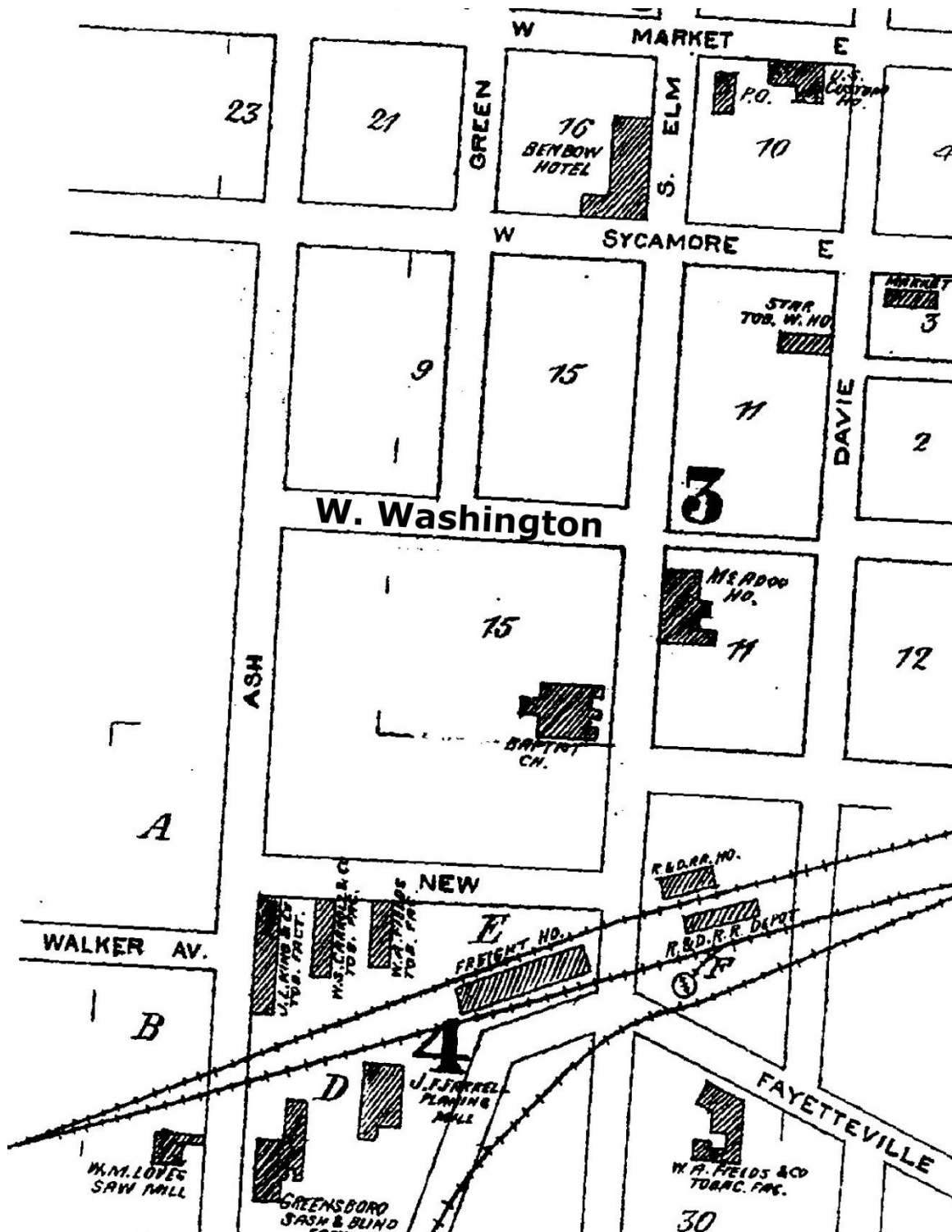


Fig. 3.8. 1885 Sanborn Fire Insurance map.

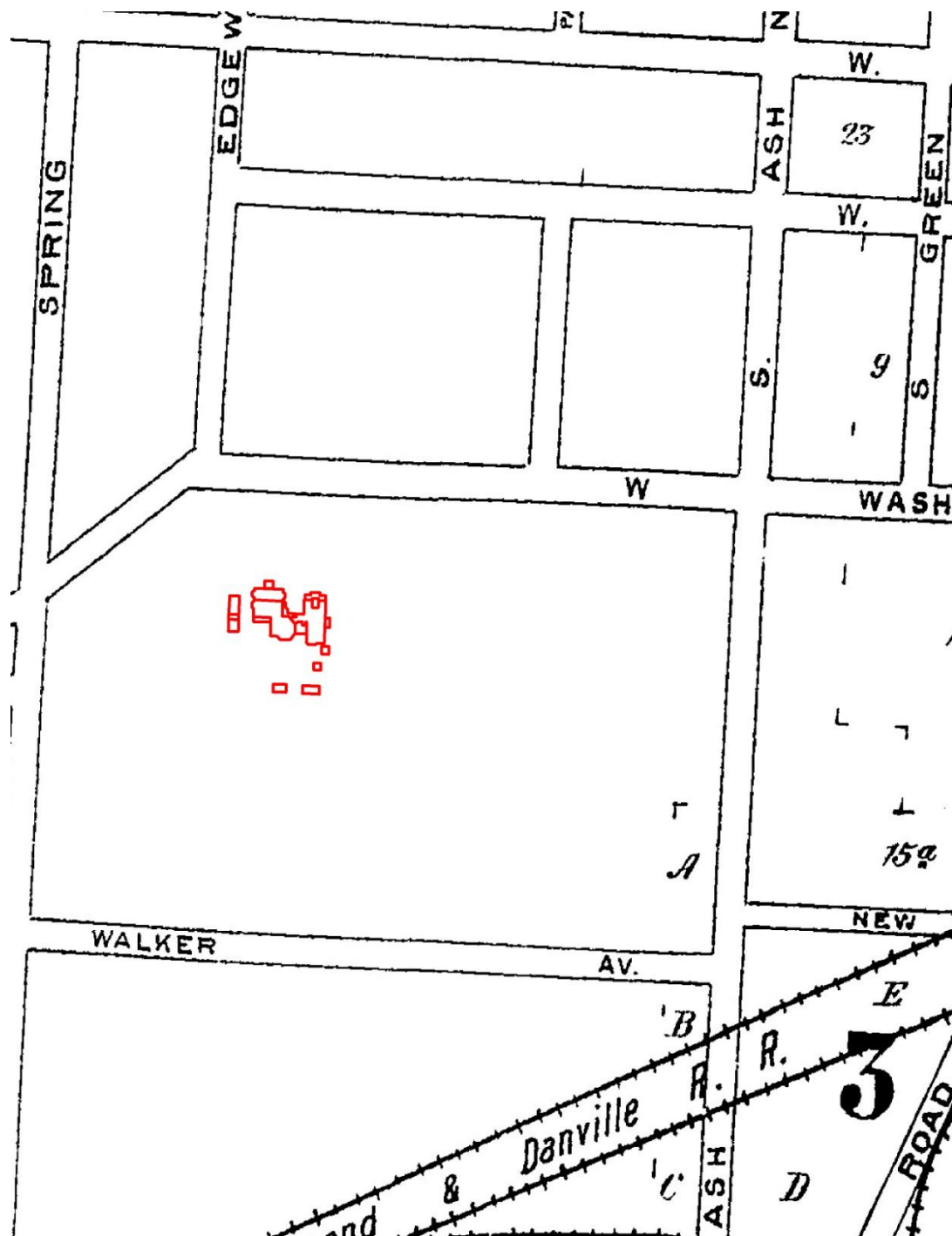


Fig. 3.9. 1888 Sanborn Fire Insurance map with 1907 building footprints.

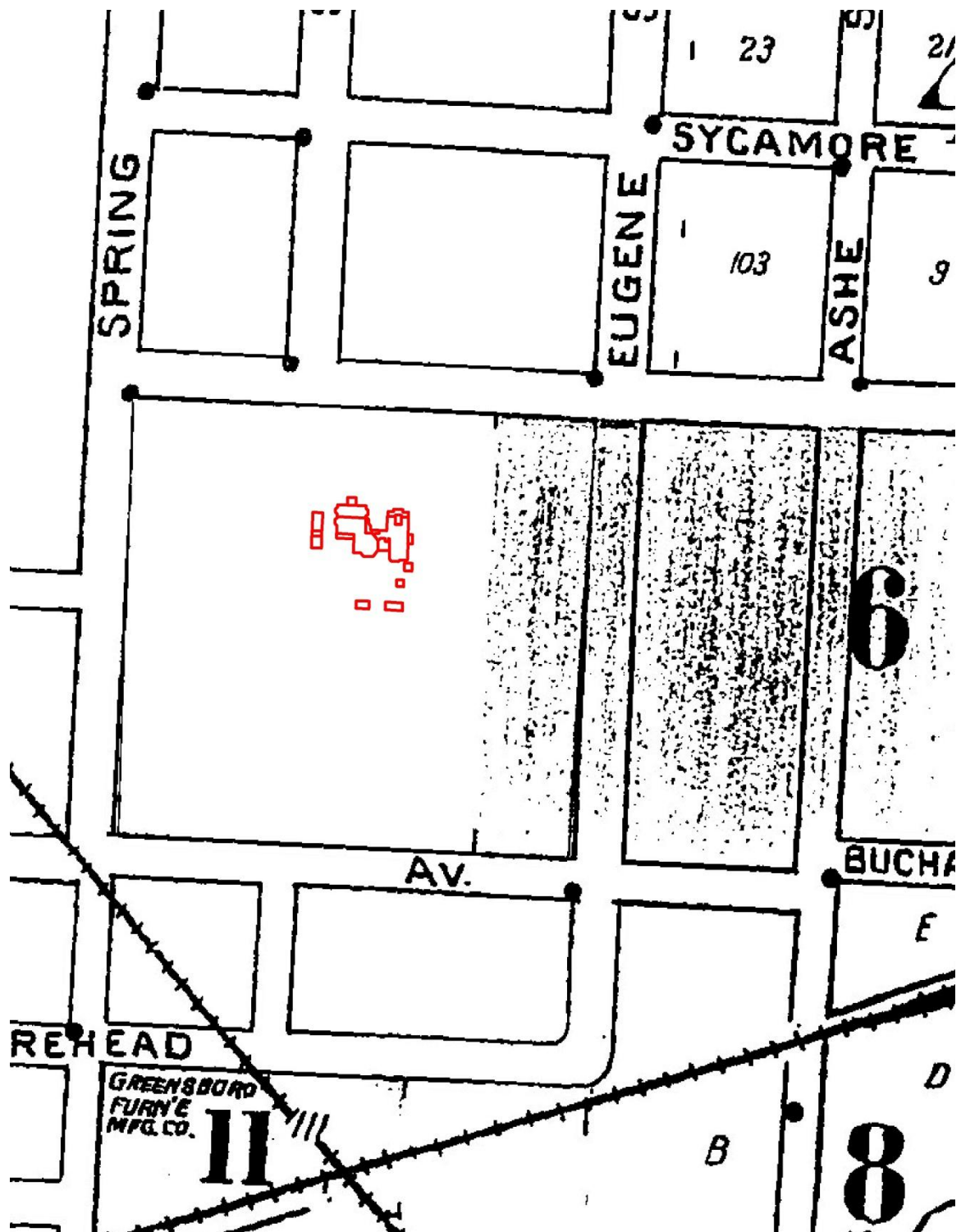


Fig. 3.10 1902 Sanborn Fire Insurance map with 1907 building footprints.

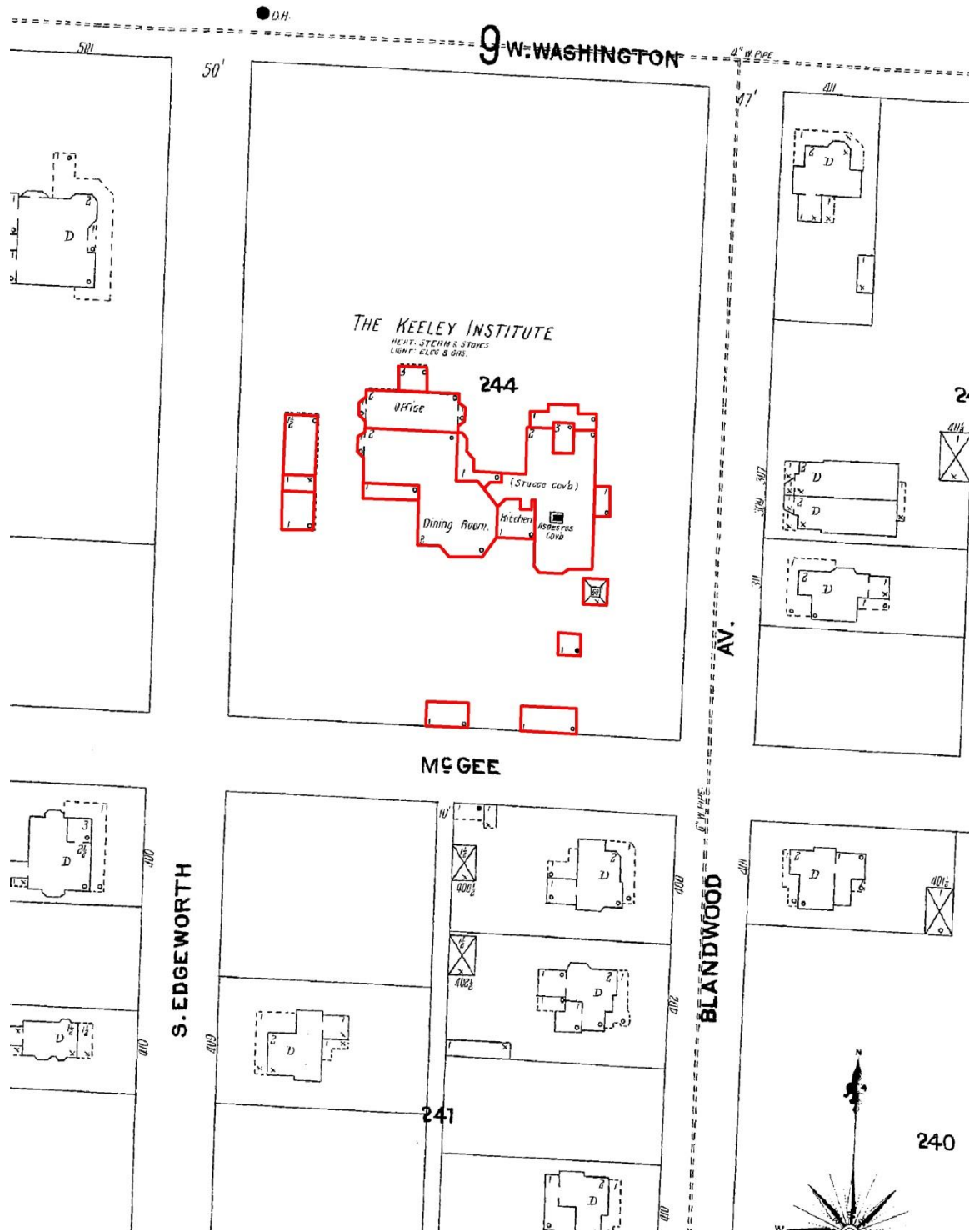


Fig. 3.11 1907 Sanborn Fire Insurance map. Note the drastic reduction in the property's size between 1902 and 1907 maps. (See Fig. 3.10)

The final map illustrating the most drastic changes to the property was the 1907 map used previously to study the home's structural footprint. (See figure 3.11) This detailed map showed the extension of South Edgeworth, Blandwood Avenue, and McGee Street, all through the Blandwood property. The extension of these three streets dramatically changed the property's size and may have destroyed any exterior structures that were not in close proximity to the house. The two small structures on the southern boundary of the 1907 property may have been constructed to replace structures lost during the new construction and sale of property or may have simply been just outside of the construction zone. Either way, the footprints of these small structures have also been lost to modern road construction as illustrated in figure 3.12.

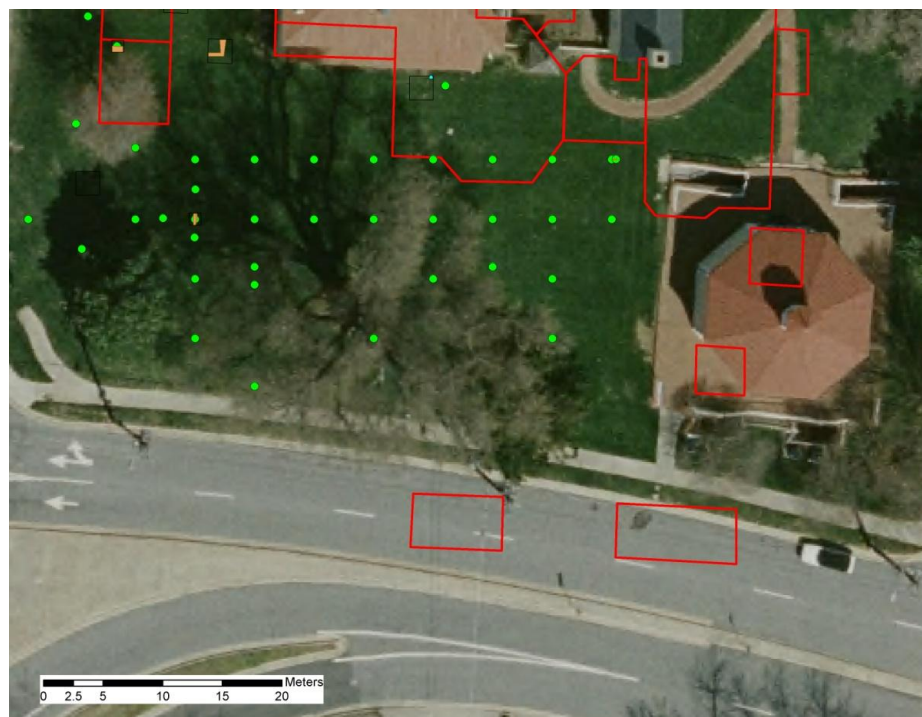


Fig. 3.12. 1907 building footprints over modern aerial photo. Illustrates the loss of three known outbuildings and a windmill on the Blandwood property.

Two aerial images are included in the Blandwood GIS including a modern aerial image dating to 2007 that was provided by the City of Greensboro and an older aerial image of the property from an unknown origin. (See figure 3.13) The modern aerial photo includes all of the property and was taken at a 6 inch resolution for high image quality. The historic image was also produced by Guilford County for tax purposes (Poteat 2010, pers. comm.).



Fig. 3.13. Mid 20th century aerial photo of the Blandwood property.

The historic footprints resulting from the rectified maps and aerial photos quickly aided in the interpretation and identification of many of the features identified throughout the duration of the excavation. The ability to quickly position digital photos within a real-world space in order to compare them is a testament to the effectiveness of viewing historic resources through a GIS. In chapter six, the georeferenced images and maps are discussed within the greater context of the site and a few questions begin to be answered about the unknown history of Blandwood Mansion.

CHAPTER IV

ARCHAEOLOGICAL DATABASE CREATION

Introduction

In order to safely store and analyze the data recovered from the archaeological excavation, a custom Access relational database was created. The database was designed to serve multiple functions including the housing of contextual and artifact data as well as to be a powerful analysis tool in itself and in conjunction with the site GIS. Below is a brief description of the design considerations taken into account during the construction of the database as well as a discussion of some specialized features built into the database.

Purpose

The Blandwood database was designed to serve many purposes, but the most important of these was to serve as a dynamic tool for the analysis of data resulting from the excavation. In the past, nearly all archaeological information including context and artifact attributes were recorded on paper field forms and catalog sheets with some data eventually being re-entered into a flat Excel table. While this method may have been moderately effective in retaining the archaeological record, it was quite inflexible when it came to analysis and reproduction of the recorded data. Also, the lack of easy replication in paper materials made loss or damage of the records much more of a problem. Instead, a relational database provided a singular place where all data could be stored and was much more flexible than previous methods. Not only was all of the data housed in a single Microsoft Access database file, but it could be much more

easily shared and analyzed. The database has built-in safety mechanisms so that the data within can be more securely protected from loss, contamination, and/or theft. The speed, accuracy, and efficiency of a database system was also unrivaled when considering tasks such as duplication, data entry, error prevention, table manipulation, data queries, calculations, and graphical representation. Another key ability of a database system was the ability to compare data to other sources more easily, especially if the two datasets were created using the same database structure.

Another consideration for having data in a digital format was the integration of the archaeological information into a GIS. Quite simply, if a site GIS was to be created, any archaeological data that were to be displayed or analyzed within the GIS would have to be converted into a digital format at some point. With an Access relational database, not only could the data be entered and stored in an orderly manner, but ArcGIS was also compatible with the Microsoft database model so data flow between the database and GIS was made easier and less error prone.

The Relational Database Model

The Relational Database model of data storage is a table-based method of arranging data so that logical links between attributes of records can be retained and used to record real-world data. Hierarchical links are made between tables containing similar data so that each consecutive table holds increasingly detailed information about records in the last. In figure 4.1, a simplified version of the table structure of the Blandwood Database is provided as an example of the relational model. In the figure, each box represents a table containing archaeological data with the table column headers listed in each. The first table, the *Project* table, holds general

information about archaeological sites. Each site is assigned a *Project Key* number to link it to the next table through a One-to-Many relationship. This simply means that for one record in the Project table, there can be many related records in the next table. The next table, the *Context* table, contains information about the excavation units and features found within each archaeological site. Another One-to-Many link is then made to the *Context Sample* table which holds the artifact bag information for each record within the Context table. This pattern of links flows down to the *Artifacts* table where the finest level of detail can be found, right down to the smallest shard of glass recovered from a site. This simplified model is the foundation of the Blandwood Archaeological. To view the full database relationship flowchart of the Blandwood Database, see Appendix B.

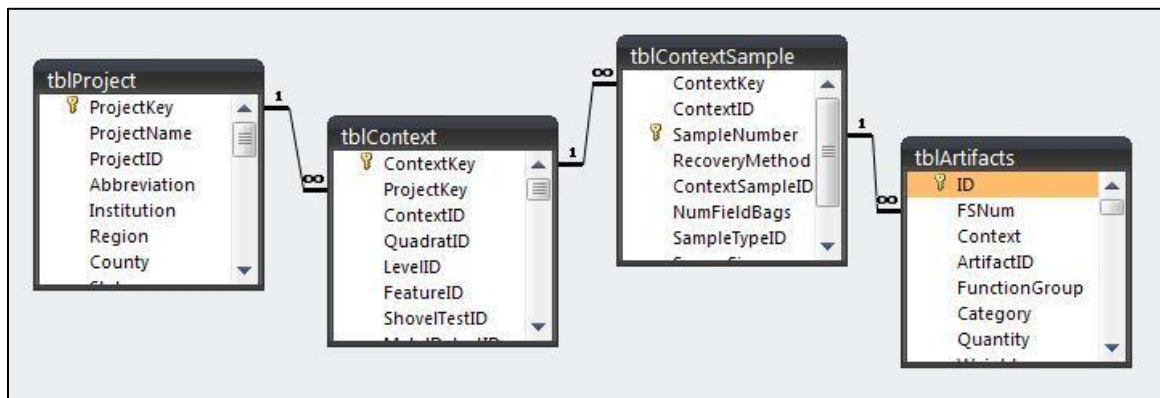


Fig. 4.1. Simplified database table relationship illustration. Each link includes the relationship type and the related fields.

The main reason for spreading the attributes of the records across multiple tables as in the example above is to minimize repetition of data within the database in order to reduce database size and increase the database's efficiency. This is commonly termed *normalization*. In

the relational database model each table is linked by a column known as a *Primary Key* which is made up of unique values, usually a simple number created automatically by the database program. Each Primary Key is linked, or related, to a *Foreign Key* which shares one or more of the same values as the Primary Key. So while the Primary Key may only hold one record, say Primary Key # 2, the Foreign Key may hold five records that describe the record with Key # 2 (Lock 2003, 89-94).

Similar tables can be created in Microsoft Excel, but with a number of restrictions that can create problems for datasets as large as those resulting from a full excavation. The *flat* tables of an excel spreadsheet do not support relations so all of the information to be analyzed must be housed within a single table. For smaller datasets, this model is effective, but for the complicated and detailed information resulting from an archaeological excavation, a flat table is insufficient. The Blandwood Database itself is made up of 26 data tables with a total of 314 individual columns. For a flat table to hold the same information, it would also need to have 314 separate columns of information. When entering hundreds of context records and thousands of artifact records into such a table, one can see how the table would quickly become unmanageable.

Database Internal Design

The two main divisions of archaeological data that the Blandwood Database holds are the excavation's contextual information and the artifact attribute data from cataloging. The contextual data are made up of the spatial measurements and attributes of the areas of excavation beginning at the site (or Project) level and filtering down to the smallest features and transition layers. In figure 4.1, the first three tables represent the Context side of the database

while the far right table makes up the Artifact section. The purpose of the contextual portion of the database is two-fold. First, the contextual portion simply houses all of the recorded information that places the artifact collections within space. The second purpose of the context portion of the database is to act as a spatial reference in the place of a site GIS. While we have GIS software available for use, this is not always the case, so the contextual information serves as a link between the artifact information and the space surrounding it. The context tables also have the ability to store detailed information much more easily than the layers of the GIS and the entry process of the information is much easier using forms within the database. Similar forms can be created within ArcGIS for data entry, but such forms are more difficult to share and ArcGIS software is much less accessible than Microsoft Access.

The second portion of the database is made up of the data resulting from the cataloging of the artifact collection and is the most robust section of the database. The benefits outlined earlier of the database system especially come to light within this section when compared to older data storage methods. The artifact data entry forms and data tables within the database were specifically designed to be flexible in the types of artifacts that can be entered while retaining the ability to store as much information as necessary about each artifact. Essentially, the database had to be able to accurately and efficiently store information about nearly any object that may be found during the course of an excavation whether modern, historic, or pre-historic. The finished database accomplished this task by using dynamic forms and table designs which optimize the data entry process. The classification method used to categorize and organize the artifacts was based on a division of *Function Groups* first developed by Stanley South in South Carolina (South 1977). Table 4.1 lists the specific function groups used within the Blandwood Database including some groups not included in South's original set. Using these

function groups, distribution and use patterns linked to specific tasks and activities can be more easily recognized and explained. For example, a high density of kitchen artifacts may indicate a nearby structure used for cooking that was previously unknown.

The alternate criteria for artifact organization used within the database are artifact *Categories* that are loosely based on artifact material with some categories alluding to more specific artifact functions. (See Table 4.1) While the list of artifact categories may be somewhat unnecessary for the cataloging process or redundant of the function group criteria, their inclusion was more for the organization of database tables than to provide further information about the artifacts themselves. The reasoning behind their use will be discussed in more detail in the next section.

TABLE 4.1. List of artifact *Function Groups* and *Categories* used within the database.

Function Group	Category
Activities	Bead
Architecture	Bone
Arms	Ceramic
Clothing	Glass
Faunal	Masonry
Floral	Metal
Fuel & Fuel Byproducts	Tobacco
Furniture	Utensil
Kitchen	Lithic
Lighting	Other / Unknown
Miscellaneous	
Personal	
Smoking	
Unknown	

Database User Interface Design

The database implements a series of digital forms or pages in which users can input information, perform queries, or edit database entries. The use of forms enables the user to easily identify where to enter data and helps mitigate possible errors resulting from the entry process. The three main forms within the database are known as the *Project*, *Context*, and *Artifact* forms and are simply named after the information that they hold. (See Appendix C for screenshots.) Within the Project form, the user can input information about the archaeological project and the site in which the excavation is held. This information generally covers a wide range of background information integral to the excavation including information about site leadership, sponsors, institutions, and a short site abstract. A subform is attached to the Project form so that other files and documents can also be attached to the project such as PDF files, Microsoft Word documents, image files, and much more. All of the attached documents are stored safely within the database file and can be opened and viewed at will.

The Context form is used for entering and viewing data from individual contexts such as archaeological units, features, shovel tests, and surface collections. The context form is also the first form to implement a “smart” user interface design to aid data entry. The term smart is used to refer to automated changes within form that correspond to user input in order to guide the user through the data entry process while increasing entry efficiency and minimizing user error. For example, within the Context form, if the user begins to enter a shovel test into the first data combo box, the rest of the entry boxes and buttons within the page that do not correspond to shovel tests are disabled and grayed out. This way, the user does not have to worry with text boxes and buttons that are not applicable to the context type being entered. The tab function

also skips over the grayed out boxes so keyboard navigation is made much more efficient enabling the user to enter data more quickly and with minimized chance of erroneous entries.

Each context is given a unique ID that is a combination of the context type abbreviation, context number, and the layer number if applicable. This ID allows users to quickly and precisely identify each context using the logical progression of the code. For instance, the context “Unit 4, level 5b” is coded into U4.5b.

Within the Context form, all of the supporting information behind each context can be entered either in the main form or in attached subforms. There are nine total context subforms which house records that describe the most intricate details of each context. The purpose behind employing subforms attached to each context is two-fold. The first and most important reason for using subforms is the ability to attach multiple attributes to the same record in the parent table. For example, since a square unit has four corners, there are four separate coordinates that describe its spatial location. While the coordinates could be stored within four different columns of a table within the same row, it is much more efficient to store them as one column within a related table using a one-to-many relationship. So one record (or context for this example) within the *parent* table would have many related records (like coordinates) within the *child* table. This model has been employed throughout the database and is the theoretical foundation of the Relational Database Model.

The second reason for using subforms is based on the logistics of entering complicated data such as archaeological context information into a database. As in the above example, four text boxes could have been added to the main context form to hold the unit’s coordinates, but a problem then occurs. Not only does the form begin to become very crowded, but what happens if a unit has more coordinates than there are boxes in the form? By using subforms, the main

form does not need to hold as much information and the data flexibility is greatly. Having a few simple subforms rather than one very complex main form is not only more efficient in regards to database computation speed, but is also much less confusing to the end user. While the form design implemented within the database makes data entry much more efficient than with previous methods, the true power of the database lies within its ability to present and utilize the once abstract data into a form which is essential for analysis and interpretation.

Database Queries

Once data has been entered into the Blandwood Database it can be immediately viewed and transformed using advance search functions called *queries*. Queries are used in nearly every piece of software written and are commonly associated with common internet search engines such as Google and Yahoo. In a query, the user simply specifies what data are requested and often, how he or she would like to see it displayed. Queries can range from very simple to extremely complex depending on its intended purpose. For example, if the user would like to know how many artifacts are in the Blandwood Database, a query would be created which returned the values within the artifact quantity column of the artifact table. The values would then be summed and the total number of artifacts would be displayed within a new table. This method of querying gives the user the ability to extract data from the database in a usable form which would be extremely tedious or impossible with traditional sources. While it takes less than a second to retrieve the total number of artifacts using a query, such a task could take a very long time with paper records and is much more error prone.

An additional quality about the queries used within the database is that they can be saved and used again in the future to show updated results. So as additional data are entered

into the database, the values returned by a query will change to reflect changes in the data. This insures that each set of results will be accurate and means that once a query is designed and saved, it will never need to be created within the database again. Since queries always reflect the most recent updates within a database and can be saved, many of the most common tasks for record keeping and analysis can be integrated into the database user interface for easy use. Some such queries that have been incorporated into the Blandwood Database include artifact counts, artifact tags, function group distribution charts, and more complex dating models.

The results from queries can take many shapes and can be designed to serve many purposes. Raw data returned by queries can be exported in tabular form to use within another program such as SAS or Excel. Microsoft Access also supports the creation of automated reports including data graphs, tables, and calculations. In the next chapter, queries enable the database to perform complex calculations to instantly display artifact dating information based on various artifact attributes.

CHAPTER V

DATA ANALYSIS

Introduction

A number of tools were built into the database to aid in the dating of artifact deposits. Specifically, Median Ceramic Dating was implemented to aid in the automated dating of contexts. An equation based Flat Window Glass Dating method was also automated within the database which calculated the data of flat glass based on thickness. These tools help to speed up data analysis and help with dating consistency. The models used within the database are widely accepted and well tested within the field of Historical Archaeology. While some error or ambiguity is present within the model, specific instructions and warnings are provided for the user to aid in correct data interpretation.

Mean Ceramic Dating

Mean Ceramic Dating (MCD) has been completely automated within the database for layers containing ceramic artifacts for which median dates have been assigned. The MCD method used in the database is the same model that was established by Stanley South in the early 1970s (South 1977). A median date is assigned to a specific ceramic artifact by comparing the artifact's beginning and ending manufacturing dates. This date theoretically represents the date where production of the ceramic type peaked and is most representative of the date the ware was likely produced. A list of the most common ceramic types and their corresponding median dates is referenced within the database to automatically generate the MCD for each

ceramic artifact entered. The ceramic dating list is the same as that used within the DAACS database and was created by referencing established ceramic dating sources including Noël Hume and South (DAACS website 2009, <http://www.daacs.org/aboutDatabase/MCDTypes.html>).

The artifact median dates are then used to compute the MCD for the layer in which they are held. The equation used to compute the layer MCD was developed by South (1977) and has been well tested.

$$Y = \frac{\sum_{i=1} X_i \cdot f_i}{\sum_{i=1} f_i} \quad (5.1)$$

In the equation, Y represents the calculated date while X is the ware type's median date and f represents the number of artifacts in each type. The numerator of the equation simply multiplies the median date by the number of sherds and sums the products of all ceramic types. The summed product in the numerator is then divided by the denominator which is the sum of all sherds in the sample. The resulting value is the mean date for the context (South 1977).

As artifact data are entered into the database, most ceramic artifacts are automatically assigned a median date and the MCD calculation is automatically recalculated for the sample context. The median dates assigned to the artifacts are largely based on the same dating information used within the DAACS database and made available on their website (DAACS website 2009). The date is generated by a query within the database that assigns the corresponding median date based on the "MCD Type" field on the artifact entry form. To see the full list of calculated Mean Ceramic Dates for all of the excavated contexts containing identifiable ceramic sherds, please refer to Appendix E.

Window Glass Dating

A number of flat architectural glass dating equations were compared to add an additional reference date to each layer containing flat glass shards with Moir's model being incorporated into the database as the best for the circumstances at Blandwood. The modeling of formulas to describe the relationship between flat glass thickness and manufacturing date has been attempted since the late 1960's. Flat window glass from the 18th and 19th centuries tends to grow in thickness as the manufacturing date moves forward in time so that older shards of glass should be thinner than those more recently manufactured (Rivers 1999). This trend has been statistically tested by multiple archaeologists and regression models based on very large amounts of data have provided a "best fit" formula for dating each shard based on average thickness. At least four different formulas have been constructed and applied with varied success, but it seems that Moir's dating formula is more accurate and so was integrated into the database (Ball 1983; Moir 1982; Orser n.d.; Schoen 1985).

The formula developed by Moir is based on a linear regression equation resulting from a very large population of window glass data from multiple sites and has a fairly strict set of site criteria to insure the accuracy of results. Moir based his analysis on counted and measured flat glass fragments from 23 different farmsteads using only samples from non-feature units to avoid possible bias within the data. The samples were then modeled using linear regression according to thickness and approximate date resulting in the following "best-fit" equation: (Moir 1987, 75)

$$D = 84.22 * M + 1712.7 \quad (5.2)$$

Equation 5.2 produces a predicted date based on shard thickness where D is the predicted date and M is the shard thickness in inches. According to Moir's calculations, the model accounts for 93% of variation between thickness and date with $r = 0.965$ and an accuracy of ± 7 years for shards less than 3.3mm in thickness. Further restrictions for the application of the model in historic sites listed by the author include: not applicable to specialized, urban or non-residential sites, greater inaccuracy for dates before or after 1810-1915, length of occupancy should be less than 60 years (variable with stratigraphy), and sample size needs to be "reasonable" and collected from multiple contexts (Moir 1987).

It should also be noted that the predicted date calculated by the equation is representative of the date that the shard was manufactured, so theoretically, the date that a specific structure was built within the site. One should be careful when dating contexts based on shard thickness due to the high likelihood of a prolonged artifact use period compared to other artifact types such as pipe fragments and other ceramics. With this in mind, the calculated window glass dates should only be used as a Terminus Post Quam date and other artifacts should be relied upon for more precise dating of stratigraphic layers. The presence of window glass within a context may also be representative of the destruction of a structure, providing a good marker of the structure's lifespan based on the difference in the calculated shard dates and the date of the context itself.

To apply the equation to the window glass data resulting from the Blandwood excavation, a series of queries were created within the database to calculate the predicted dates automatically. The queries convert the metric shard thicknesses into inches and perform the calculation for each shard thickness within a given context. Another query then sums the total number of shards within the site grouping them by shard thickness.

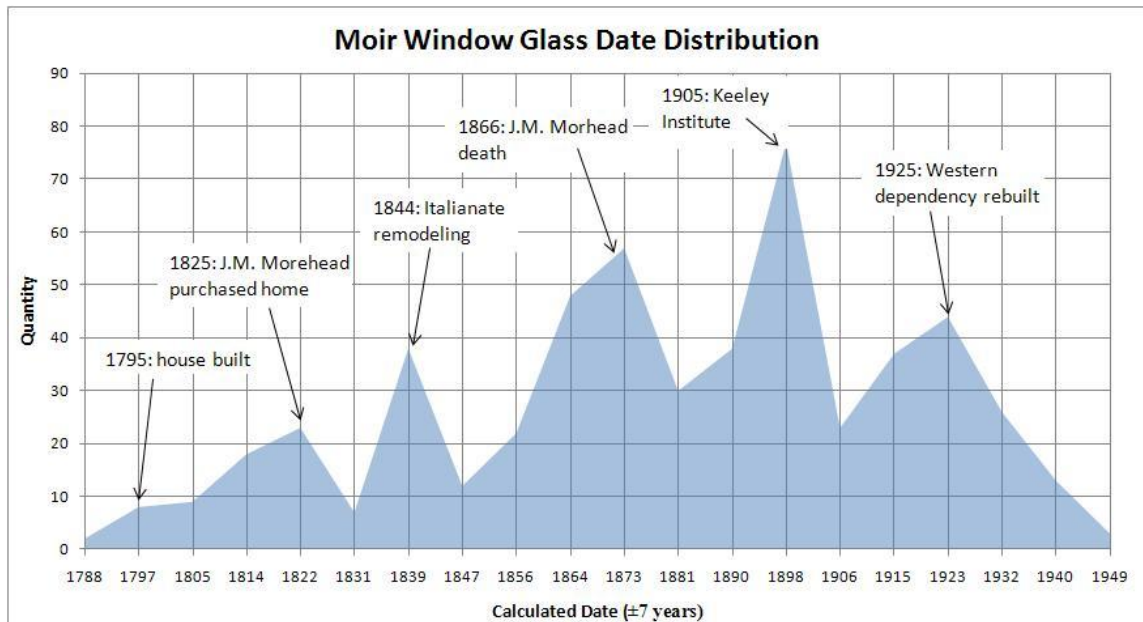


Fig. 5.1. Site flat glass date distribution graph. Note how each peak in quantity relates to a major historical event within the property's history.

While shard dates were calculated for every context including window glass within the site, a good way to visualize the variability of thicknesses within the site and judge the accuracy of the predicted dates is to display the data histogram. By creating a chart where the horizontal axis represents the predicted dates (or thicknesses) and the vertical axis is the quantity of shards sampled from the site, distribution patterns can be identified relating to structural events of the site's history. Figure 5.1 displays the distribution of shard dates resulting from the artifacts collected during the Blandwood excavation and the most likely corresponding historic events of the property.

The pattern of quantity peaks and troughs is quite representative of the structural history of the Blandwood property and further supports the quality of predicted dates produced by Moir's equation. As illustrated, the window glass quantities begin around the early to mid

1790's which is representative of the building of the original house structure around 1795 by Charles Bland. No record exists of any structures on the property before the 1795 structure, so the absence of shards of this date is justified within the site history. Next we see another peak in quantity near the date at which J.M. Morehead purchased the property which would signify either remodeling soon before or after the purchase of the property by either the Humphrey or Morehead family (Edmunds 1976; A. Poteat, pers. comm.). We do know that the home was remodeled in the Italianate style in 1844 which is represented by another spike in shard quantity (Skowronek 1980). Similar peaks are represented for Morehead's death, the opening of the Keeley Institute, and the rebuilding of the Western dependency in 1925. Most of the peak dates seem to pre-date the actual historic date by 3-5 years which is well within the accuracy interval cited by Moir with the exception of the 1866 date. The peak in quantity represented after Morehead's death in 1866 is most likely representative of a possible remodeling of structures on the property by the inheriting family members a few years after his death.

Given the complex architectural history of the site and subsequent soil disturbances, the dates produced by the shard thickness measurements are remarkably accurate. The accuracy of the results also comment on the site restrictions recommended by Moir since the Blandwood property broke from many of restrictions, yet still maintained acceptable accuracy levels. It very well may be that the wording of the restrictions is overly generalized to the point that the reasoning behind the restrictions is lost. More interestingly, the high correlation of shard dates with the historic dates is a testament to the artifactual purity of the site. If glass fragments from another site were mixed in with the glass sample, a more erratic graph would likely have resulted, possibly with quantity peaks not represented by events in the site's architectural history.

Spatial Analysis

Two prominent questions to be answered as a part of the Blandwood excavation pertain to how the past home owners of each generation changed the property and what tasks were performed in the separate sections of outdoor space around the house? To begin to answer these questions, two methods of spatial analysis were conducted to look at the physical soil layers left on the property and to view the sampled artifacts within a broader spatial context. This was done in order to identify patterns within the excavation data that would normally be lost within the complexity of the data itself, but is essential to learning about how the residents perceived and used the space around them.

Once the spatial data from the excavation was compiled and entered into the GIS, the site's natural and disturbed soil layers were mapped using three-dimensional software and artifact density maps were created to show the distribution of artifacts across the site during different periods of occupation. With these methods, broad changes in soil elevation, thickness, and artifact density led to a better understanding of each layers' history and the artifacts it contained.

Three-Dimensional Layer Modeling

In order to gain a better understanding of the underlying topography of the site's natural soil layers, three dimensional soil layers were constructed to display the change in elevation of each layer as well as the change in each layer's thickness across the area of interest. The soil layers were constructed within ESRI's ArcMap and ArcScene using the 3D Analyst extension. With the 3D soil layers, the change in elevation of each soil layer could be observed to better understand the changes that occurred within the historical landscape.

Below are the steps taken to convert raw soil layer measurements from the field into the 3D layers displayed in figures 5.2 and 5.3:

1. During excavation, all surface elevations were recorded and labeled using the Total Station where either unit corners or shovel tests were located.
2. The depth from surface was recorded for all visible layer changes within all units and shovel tests. Each resulting level was then assigned an abbreviated layer description which grouped similar levels in other contexts. For example, CF was used to signify “Clay Fill”.
3. A separate point feature class was created for each soil layer containing the X,Y, and Z coordinates of the recorded soil elevations with the Z elevation representing the top of the soil layer.
4. From each soil layer, two raster datasets were created using kriging; a digital elevation model (DEM) and a layer of predicted soil thickness across the study area.
5. In order to show the thickness of the soil layers in the third dimension, the raster thickness level was converted into vector contour polygons that could be extruded within ArcScene. To appropriately extrude each layer by its thickness value, the expression

$$-1*([Value_Max]/100) \quad (5.3)$$

was used within the extrusion text box under layer properties.

6. The soil thickness layers were then assigned elevations based on the corresponding layer’s DEM created in step 4.

After these steps are completed, 3D levels are available that show the elevation change of each soil layer across the area of study as well as the change in each layer’s thickness.

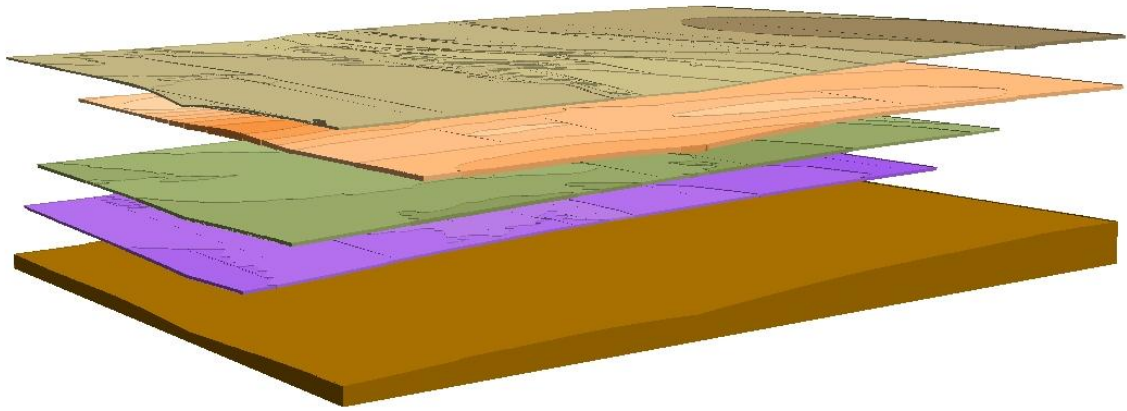


Fig. 5.2. Three-dimensional soil layer illustration. From the top: modern topsoil (MT), clay fill (CF), historic topsoil (HT), transition layer three (TL3), and sterile subsoil (SS). Viewer is facing northeast and four meter spacing shown between layers.

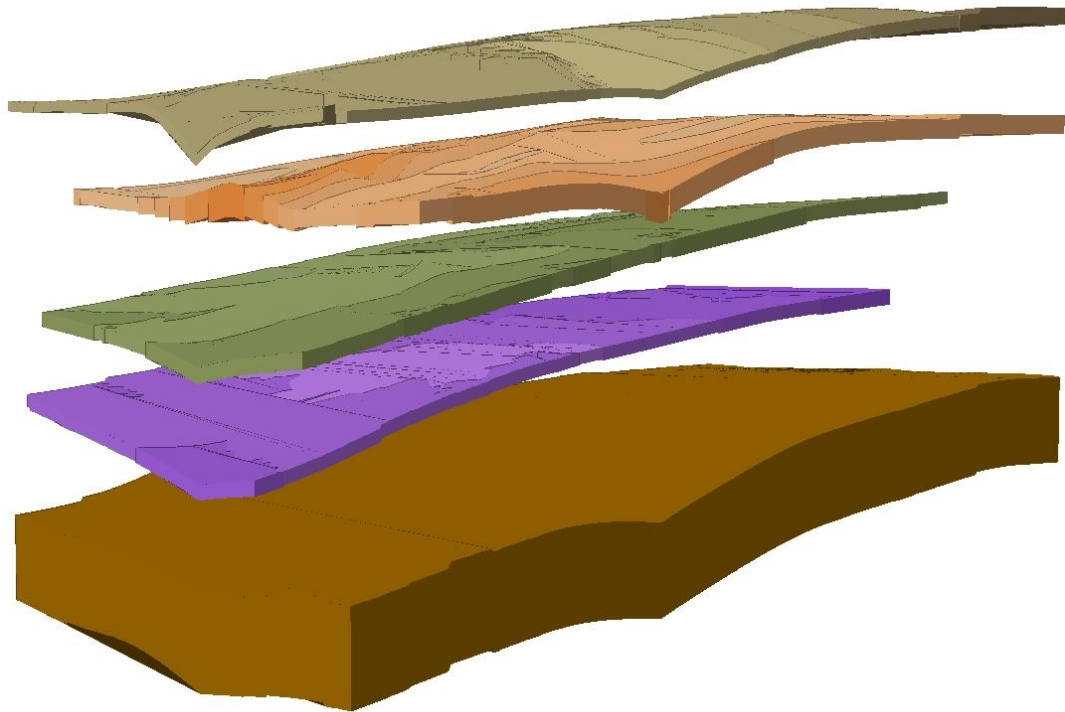


Fig. 5.3. Exaggerated three-dimensional soil layer illustration. Viewer facing northeast with four meter spacing between layers and an exaggeration factor of five.

In order to ensure the correct interpolation of un-sampled elevations and thicknesses across the raster layers, the interpolation method of kriging was chosen over the more simplistic process of Inverse Distance Weighted (IDW) interpolation. In both kriging and IDW interpolation models, the values of unknown points are calculated based on the known values of near-by points. The main difference between the two models is how the surrounding point values affect the unknown point's value. In IDW, the relationship (or weight) of the known values to the unknown value is directly proportional to the distance of the known point from the unknown point. So points that are closer will have more effect on the predicted value than points that are further away (O'Sullivan 2003). Also, a bit of user error must be factored into the use of IDW because the calculated surface is highly reliant on the user defined number of neighbors and distance weighting which can be difficult to correctly identify (Conelly 2006).

The process of kriging also takes proximity into account, but instead of weighting values based solely on their distance from the unknown point, a semivariogram is used to judge the surrounding points' effect on the value of the unknown point. A semivariogram is used to show the amount of autocorrelation between known points and develop precise constraints within which point values are related to each other. Not only is the distance from the unknown point used for weighting, but the autocorrelation strength is used to further refine the relationships between points within the model assuring the most accurate estimated value possible. Kriging was also chosen as the preferred model because error within the predicted model can be calculated unlike IDW which contains no method of error calculation. This allows for fine tuning of the model variables in order to produce the most statistically accurate model possible.

A number of different kriging models were created using the Geostatistical Analyst extension within ArcMap in order to obtain the best-fit model for each layer. Prediction surfaces

were created for all layers using Ordinary, Simple and Universal Kriging models and each model's error statistics were then compared to find the prediction model that was the most accurate for each layer. This was completed for both the individual soil layer elevations and soil thicknesses datasets. The resulting error assessment data can be viewed in tables 5.1 and 5.2 with the values of least error within each category highlighted green.

Standardized procedures were used to run each model to aid in comparison and replication. For all of the kriging models, anisotropy was enabled and the search direction was changed so that it ran perpendicular to the major axis of the directional model. The other changes from default include the use of 6 neighbors instead of 5 with a minimum of 2 and the X shape type instead of the cross shape. These changes were chosen from trial and error testing to get the best comparable results possible for the models specifically for the given data. The error statistics for the models were calculated by the process of cross-validation which involves the subtraction and replacement of individual values of known points in order to compare the accuracy of the model's predicted value for a given point against the known value at the same location. The statistics computed during the validation stage comprise the first five columns of values within tables 5.1 and 5.2. In instances where the error statistics generated during validation were unable to show a clear choice for a best-fit model, a visual comparison of QQ Plots for the layers was conducted for another test of the models accuracy.

TABLE 5.1. Predicted error within elevation layers using different kriging models. Green highlighted values represent values of least error within each layer and error category.

Layer Top Elevation		Predicted Error					Best Fit
Layer - type	Mean	Root Mean Square	Average Standard	Mean Standardized	Root mean Square Standardized	QQ Plot Accuracy	
MT - Ordinary	0.01083	0.1259	0.1583	0.0301	0.5939	0	X
MT - Simple	0.01744	0.1404	0.1657	0.04996	0.06383	1	
MT - Universal	0.002474	0.1208	0.07965	0.0077	1.221	0	
CF - Ordinary	0.007	0.1429	0.1339	0.025	0.9169	1	X
CF - Simple	0.00631	0.1367	0.1695	0.01456	0.7103	0	
CF - Universal	0.00217	0.1494	0.0665	-0.01762	1.979	0	
HT - Ordinary	0.01056	0.09382	0.1921	0.03085	0.5417	0	X
HT - Simple	-0.01279	0.1324	0.2713	-0.0448	0.4469	0	
HT - Universal	0.01071	0.0945	0.08391	0.06725	1.231	1	
TL3 - Ordinary	0.009682	0.1093	0.225	0.04324	0.4859	0	X
TL3 - Simple	-0.457	0.2461	0.3029	-0.1064	0.659	0	
TL3 - Universal	0.00142	0.1176	0.07797	0.05195	1.405	1	
SS - Ordinary	0.007257	0.1524	0.1839	0.01981	0.713	1	X
SS - Simple	0.01131	0.1627	0.1758	0.03019	0.7877	0	
SS - Universal	0.01362	0.1545	0.09153	0.08377	1.48	0	

TABLE 5.2. Predicted error within layer thickness estimation using different kriging models. Green highlighted values represent value of least error within each layer and error category.

Layer Thickness		Predicted Error					Best Fit
Layer - type	Mean	Root Mean Square	Average Standard	Mean Standardized	Root mean Square Standardized	QQ Plot Accuracy	
MT - Ordinary	0.1787	5.682	5.981	0.02706	0.9564	0	X
MT - Simple	0.03878	5.697	5.785	0.005709	0.9883	0	
MT - Universal	-0.01408	5.815	6.113	0.01123	0.9231	1	
CF - Ordinary	0.1409	9.415	7.282	0.00892	1.285	0	X
CF - Simple	0.2678	8.424	9.001	0.02881	0.9281	1	
CF - Universal	0.138	9.297	7.437	0.00979	1.237	0	
HT - Ordinary	0.06207	7.136	6.132	0.01032	1.141	1	X
HT - Simple	-0.532	6.289	6.209	-0.0760	0.9976	0	
HT - Universal	0.104	7.17	6.067	0.01814	1.161	0	
TL3 - Ordinary	-0.315	5.036	4.967	-0.0474	1.01	1	X
TL3 - Simple	-0.530	4.491	4.861	-0.0941	0.9109	0	
TL3 - Universal	-0.509	5.29	5.699	-0.0647	0.9265	0	

Finally, if no clear model was shown to be superior, the layer displaying the most reasonable and expected estimate of either elevation change or soil thickness would be chosen. Fortunately, all of the layer models were able to be chosen with a combination of validation statistics or QQ Plot assessment. By conducting the error assessment, we can be sure that the predicted models are as accurate as the sampled data will allow and should be a reliable estimate for areas that were not sampled.

The resulting 3D layers shown in figures 5.2 and 5.3 work well for displaying the change in elevation and thickness of the layers across the site. Because the change in elevation in the layers is so small that it can be difficult to discern smaller variations, figure 5.3 displays the same layers with a vertical exaggeration factor of five. This means that all vertical measurements are multiplied by a factor of five so that small changes within the data are more exaggerated and thus easier to identify. With the vertical exaggeration, the east to west slope in elevation is much easier to see as well as differences in surface continuity between layers.

While the steps taken to choose the best kriging model for the generation of layer help to assure statistical accuracy, some areas of the 3D layers still remain in error. The cause of the remaining error is the fault of the elevation data itself; more specifically, the clustering of data points in some areas and their absence in others. Figure 5.4 displays all of the points used to generate the soil layers and the clear absence of sampled data points in the circled areas. No data were taken from these points either because they were inaccessible or because they had been visibly altered by road construction. Because of the absence of points in these regions, a higher rate of error is anticipated, especially in the three areas to the south and west where the property has been heavily altered, but no sampled points display the change. Since the change was not naturally occurring and constitutes an abrupt change in elevation, it is not included

within any of the kriged models. With this in mind, any deductions made based on layer shape needs to keep in mind the error associated with the regions outlined in figure 5.4, specifically along the southern and western edges.

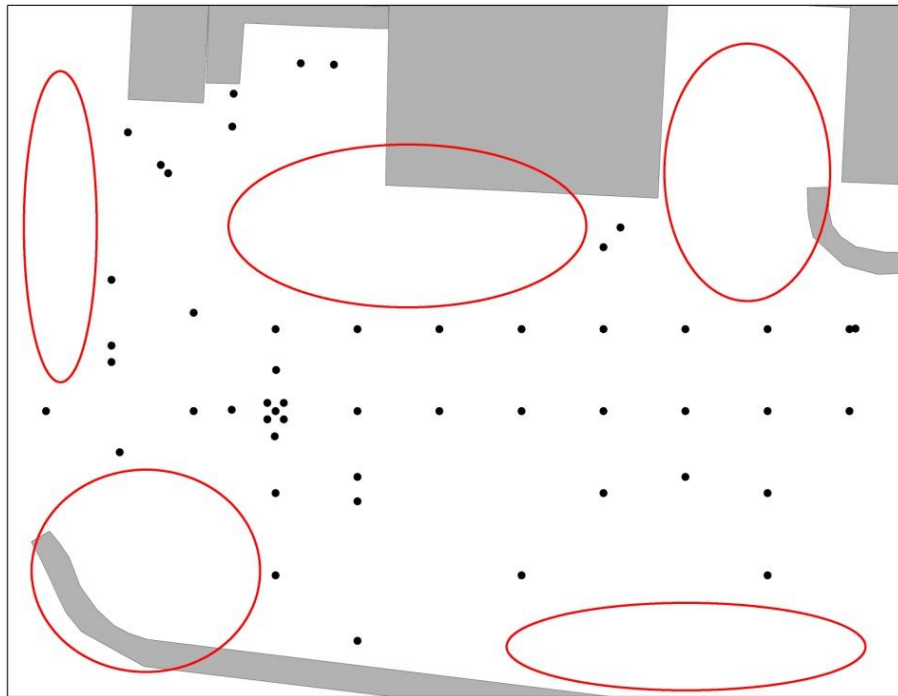


Fig. 5.4. Map of sampled points and unsampled areas. Red circles indicate areas of increased error due to a lack of sampled data.

It should also be noted that not all soil layers identified during the excavation have been included within the 3D models. For layers that were not found in more than ten separate locations, no kriging analysis could be performed since Geostatistical Analyst requires a minimum of ten known points to perform the kriging function. The extents of the layers that were available for 3D modeling are also not consistent due to layer absence in many of the sampled locations. When the layers are generated, the extents of the resulting layer are bound to the extents of the farthest sampled points in four directions.

Artifact Density Analysis

The second main consideration for spatial analysis at Blandwood concerns the distribution of artifacts over the property and what the distribution patterns reveal about the activities and land use of the property's previous owners. There are many different ways to view artifact distribution over a sampled area. Artifact density clouds were chosen as the preferred method because of their relative simplicity in both generation and interpretation.

Density maps show the amount of artifacts of a certain type that can be expected within a given area of ground. The value of density is a proportion of the number of artifacts per surface area. For our study, the measurement of density for all generated maps is the number of artifacts per square meter. The density maps were created using the Spatial Analyst extension in ArcMap implementing the kernel function with a seven meter search radius for all calculations (O'Sullivan 2003; Conolly 2006). A seven meter radius was chosen in order to include most adjacent sampled points within the 5 meter grid while avoiding over generalization of the density results. The density algorithm used assumes a normal distribution of density around the sample point and is reflected as a perfect circle around the sample location unless another sample point lies within the search radius and skews the density distribution. Each sample location was populated with a value equal to the number of artifacts found within the context represented by the center point. Since the sampled layers were of varying volumes and sizes across the study site, only shovel test data were used in calculations and the total sampled artifacts in each context were normalized by the layer thickness. Normalization is necessary in order to gain results that are statistically unbiased by differing context volumes. Normally the volume value of each context would be used to normalize the artifact data before density

calculations, but the circular shape and uniform diameter of the shovel tests made the recorded thickness value a simpler choice which required no extra calculation.

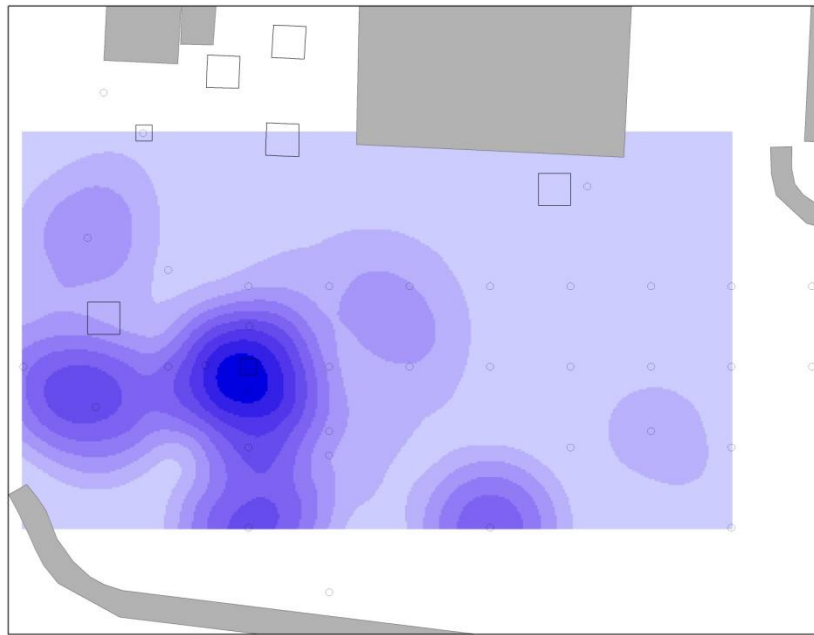


Fig. 5.5. Example of artifact density map. Map illustrates total artifact distribution within the historic topsoil level. Darker blue saturation represents higher artifact density.

All resulting density maps can be seen in Appendix F with the maps arranged for easy comparison between soil layers and common artifact types. The symbology used to classify the density measurements within each map is consistent for each artifact type so that direct comparison of shades between layers can be made. (See figure 5.5) However, the symbology between different artifact types is not consistent so no direct comparison between different artifact types should be made regarding artifact densities. The symbology between different artifact types could not be made consistent due to the high variability in artifact quantities between the types. For example, while a single location may contain a maximum of 145 glass

shards, an alternate map of creamware sherds may only contain a maximum of 4 sherds at a single location. Because of the large quantity gap between the two types' maximum values, it proved impractical to display them with the same color density intervals.

It should also be noted that while interpreting the density maps is quite intuitive, one must be careful to not be overly specific with deductions in areas that are unsampled. Density clouds display a general trend based on the normal distribution of artifacts that may or may not be true. The maps should only be used to identify broad trends in artifact distribution and the density measurements are not as reliable as true surface interpolation methods such as IDW or kriging (O'Sullivan 2003, 88). With this in mind, none of the density measurement values have been included within the figures.

The density maps resulting from this analysis played a key role in the overall interpretation of the excavated artifacts and shed a light on the activities of the past occupants. As soon as the calculations were finished, patterns within different layers began to show themselves and theories for their existence began to be formulated. Without the ability to display the data in such a visual manner, the development of ideas and the identification of relationships between artifacts and their contexts would have been much more difficult.

CHAPTER VI

DISCUSSION AND INTERPRETATION OF FINDINGS

Introduction

Until this point, little in the way of discussion or interpretation of data created by the methods outlined above has been presented and for good reason. By themselves, none of the pieces of data created told the full story of the Blandwood Mansion's history. It is only when all of the data are pulled together and compared to each other that clear pieces of the site's history reveal themselves. In this chapter, the results from the processes above are compared and contrasted in an attempt to put together as many pieces of the puzzle that is Blandwood's history as possible in order to see the broader picture.

Architectural History and Land Use

The architectural history of the Blandwood property is quite complex with many major changes recorded for both the house dependencies and the various outbuildings within the historical record. A major goal of this study was to gain further understanding about the periods of building within the property and to find evidence which explains the functions of each building. In order to do this building footprints were constructed and the distribution of artifacts within the site was mapped.

Through the earliest map available, the 1879 Ward map, we can begin to answer many of the questions that occurred during the course of the excavation. Figure 6.1 displays the

building footprints resulting from the 1879 map in context to the shovel tests and units used for excavation as well as the archaeological features located during the course of the excavation. The buildings have been numbered for discussion purposes.

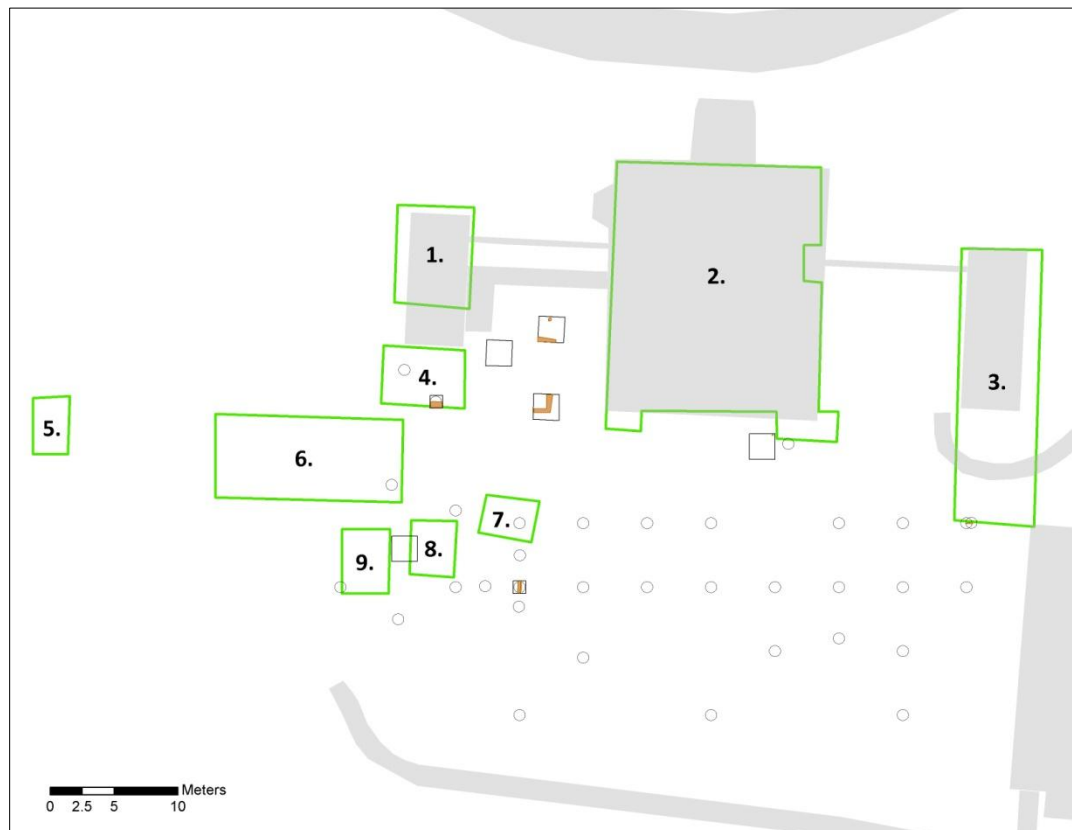


Fig. 6.1. 1879 building footprints with excavation units and features. Gray features represent modern structures.

At the bottom of building three, a feature (number 14) resembling a brick foundation was located within shovel test number 26 (ST26). While this feature was assumed to be the south end of an eastern dependency, the exact build date of the feature was unsure, either coming from the 1844 construction or from the Keeley Institute era. Since the 1879 building

footprint matches so well with the foundation feature, it was most likely constructed between 1844, the year the Italianate remodeling began, and 1879, the year the map was produced. Unfortunately, the few ceramic artifacts found within ST26 were whiteware pieces which could date well after the antebellum period. The building recorded in the 1879 map can be seen in the background of a historic image taken in the backyard of the property before the Keeley Institute bought the home. (See figure 6.2)



Fig. 6.2. Historic photo including 1879 eastern dependency. (on right)

Interestingly, when the building footprint of the eastern dependency was compared to the plan drawings of the 1980 ARC excavations, large discrepancies were noted. In figure 6.3, the ARC excavated foundation walls are highlighted in purple while the 1879 footprints are

shown in green. The excavated foundations associated with the 1846 structure fall nearly 9 meters (29 feet) from the brick foundation feature and the southern wall of the 1879 footprint. This could be easily explained if feature number 14 found in the 2008 excavation was associated with a building that was added onto the southern end of the original 1846 structure before 1879. This theory may be further corroborated by the visible break in the roofline of the dependency building shown within the historic photograph in figure 6.2.

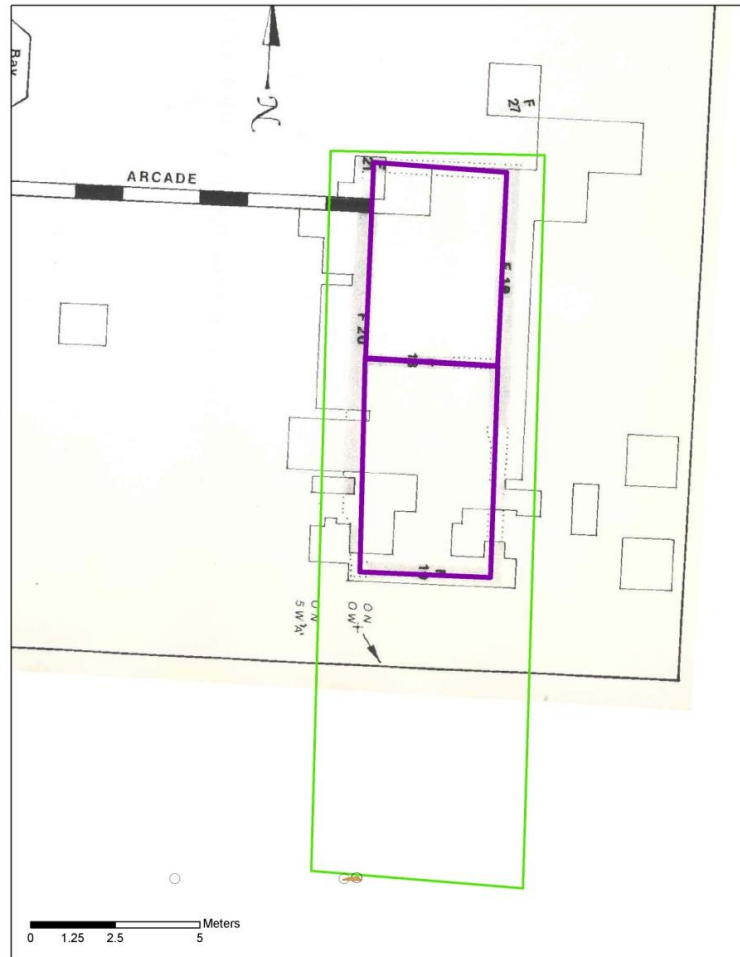


Fig. 6.3. 1879 building footprints compared to ARC identified features.

Since the ARC excavation units stopped at the southern wall of the dependency, it could also be possible that the southern wall excavated by ARC was not an exterior wall, but the interior wall of an even longer structure. This would mean that the brick foundation of feature 14 was not an addition to the 1846 dependency, but part of the original building that was missed during the 1980 ARC excavations. If both of these theories are false, then feature 14 constitutes a structure that was unknown in all previous sources. Either way, the feature warrants further inquiry to identify its true nature and place in the Blandwood property.

One other feature is highlighted within the 1879 map footprint that may be of note. On the southern wall of the main house, the 1879 footprint includes an additional feature which extends southward from the east side of the wall. (See figure 6.4) This post hole feature falls within relatively close proximity to the corner of the wall extension and could have possibly been associated with the structure. If the structure was supported with a more substantial masonry foundation, no signs were found within the unit closest to its estimated position.

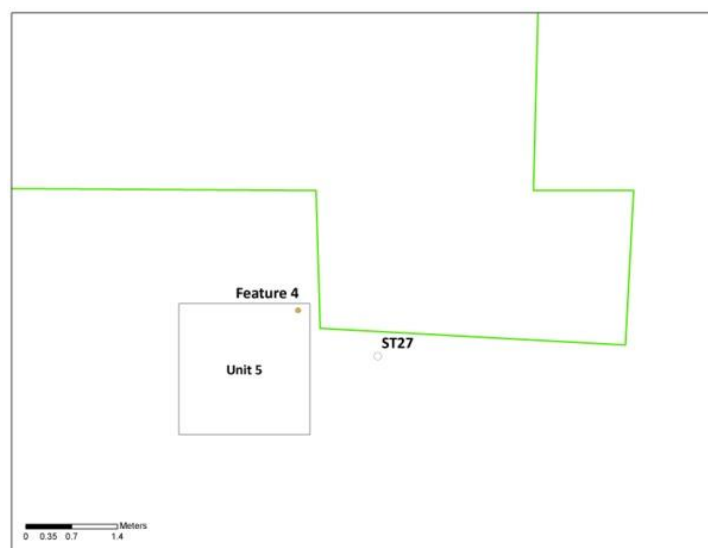


Fig. 6.4. 1879 building footprints with feature number four.

The Sanborn Fire Insurance maps provided an even more detailed image of the Blandwood structures now lost to history. The oldest Sanborn map found containing the Blandwood property structures dated to 1907. Like the 1879 map, the building footprints were illuminating for many of the features found during the 2008 excavation. More specifically, feature number eleven was found to coincide with one wall of the 1907 western dependency which lends to its possible explanation. (See figure 6.5)

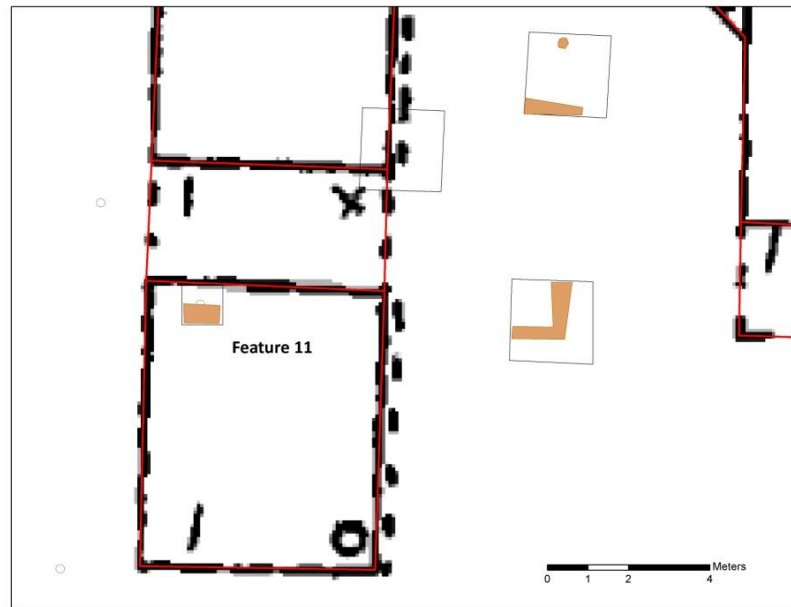


Fig. 6.5. 1907 building footprints with feature number eleven.

The brick foundation labeled feature eleven lies within close enough proximity to the wall to account for simple error in the original map and the foundation continues in the correct direction (southward) to coincide with the structure. The foundation was not found to continue northward toward the second building which would be consistent with the recorded breezeway dividing the two buildings of the dependency as recorded in the map by the dashed lines on

either side of the middle rectangle. While the breezeway may have been elevated to the same floor height as the other structures, it is unlikely that it would have had its own masonry foundation such as that found in feature eleven. The high quality foundation would have instead supported the much more substantial structure recorded in the building footprint shown around the feature. Further support for the identification of feature eleven as the foundation of the southwestern most dependency building came with the comparison of the later Sanborn building footprints from 1919 and 1925. (See figure 6.6) The consistent proximity that the foundation retains with the map footprints leaves little doubt to the identification of the structure as the proposed building.

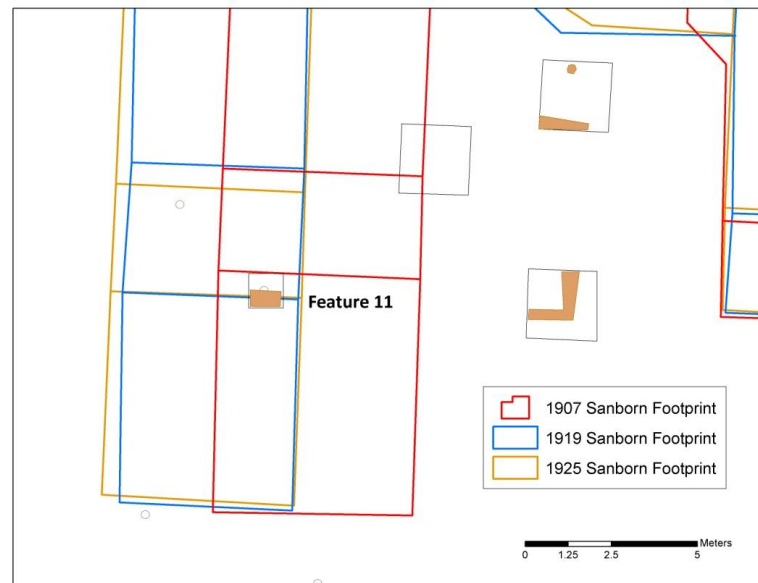


Fig. 6.6. 1907, 1919, and 1925 building footprints with feature number eleven.

While the construction date of the brick foundation is still unclear, the date of destruction was recorded with remarkable precision within the last Sanborn map. The map

dated December 1925, presumed to have been created within a year of the first 1925 map, records a drastic change in the structures making up the western dependency. (See figure 3.7 for comparison of footprints.) The building footprint of the December 1925 Sanborn map as illustrated in figure 6.7 was constructed with a completely different orientation than the previous building and must have taken place during the time between the creation of the two maps.



Fig. 6.7. December 1925 building footprint with associated features.

As can be seen in figure 6.7, the eastern-most wall of the reconstructed western dependency in the December 1925 map lines up quite well with the excavated features numbered nine and three. The discrepancy in location between the building footprint and the excavated feature can be accounted for by a large amount of error within the Sanborn map itself commented on in chapter 3. Despite this margin of error, this map effectively dates the

construction of features nine and three to 1925 which could later serve as a helpful benchmark for interpreting artifact remains associated with the features and their role in the overall site.

The dependency constructed in 1925 can also be seen in the aerial image of the Blandwood property in figure 6.8 which was taken in the mid 20th century. This image also recorded the Keeley Institute buildings as they were prior to the major change within the property of the late 1960's. Figure 6.8 also includes the digitized historic driveway which ran behind the house and is now lost. While some gravel deposits were found within two shovel tests, the full extents of the drive had never been mapped.



Fig. 6.8. Aerial image of Keeley Institute with digitized historic driveway.

Unfortunately, not all of the features could be explained by the rectified maps. Feature 10, a brick foundation discovered in excavation unit 7, has no visible relationship with any footprints displayed by the rectified maps. (See figure 6.9) This may be evidence that the

foundation is from an earlier structure that was destroyed before the 1879 map was created or was not a structure significant enough to include on any of the maps. Also, the large feature identified within unit 4 is not readily explained by any of the building footprints. The large stone and surrounding bricks within the feature could possibly be related to either of the two buildings intersecting unit 4, but further evidence is needed to clarify which one and how. The features within unit 4 may instead be related to a specific activity within the property that may or may not have ties to a specific structure.

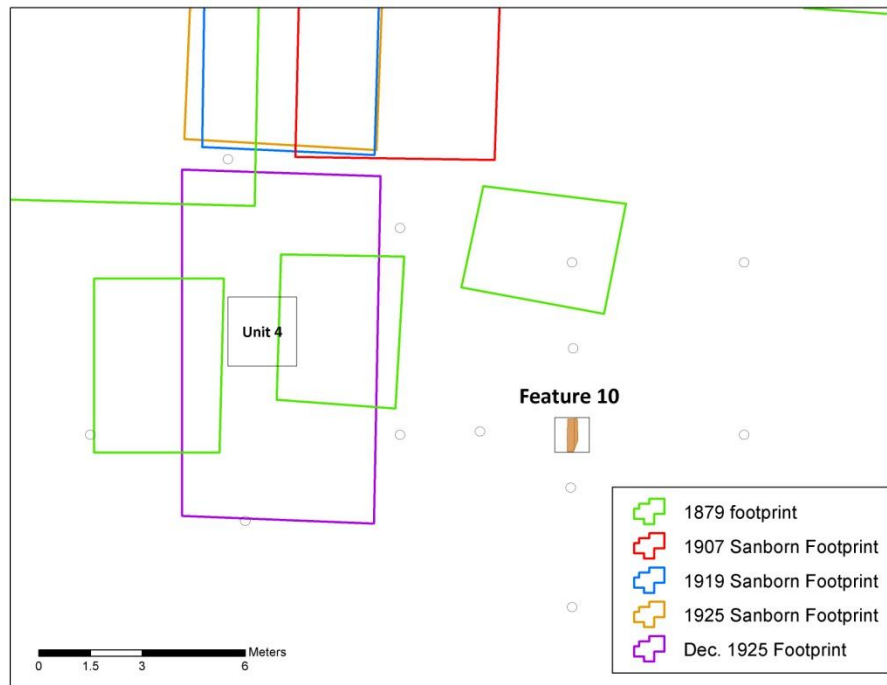


Fig. 6.9. All building footprints with feature number ten.

Artifact Density Map Discussion

In order to view the distribution of artifacts across the broader context of the site, artifact density maps were created for as many artifact classification groups as possible

including function groups and type categories. Since the modern topsoil and red clay fill layers within the site are known to be disturbed and archaeologically less significant, this discussion will focus on the historic topsoil layer as well as the transition layer between the historic topsoil and sterile subsoil layers. This transition layer has been labeled transition layer three (TL3) throughout the study. Both the historic topsoil and TL3 layers hold the majority of artifacts dating before the Keeley Institute's introduction and hold the most relevant information in regards to the archaeological features identified during the 2008 excavation.

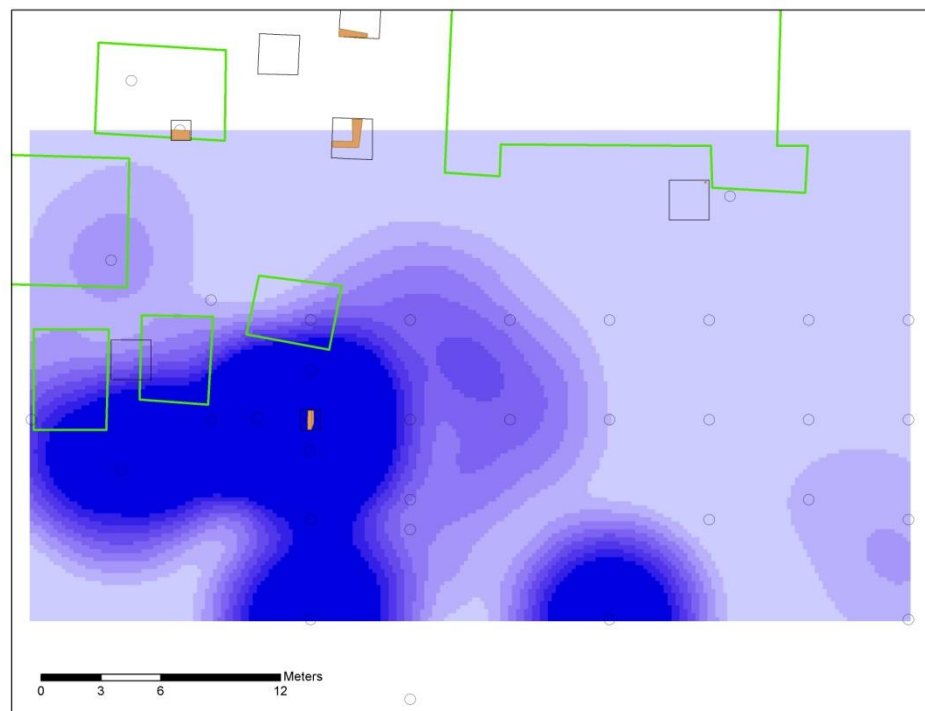


Fig. 6.10. Kitchen artifact density map of historic topsoil layer. Image over 1879 building footprints.

Only three function groups were able to be mapped due to the small number of artifacts making up the other groups as well as minimum restrictions within the software used to

generate the maps. Figure 6.10 contains the density map generated for the Kitchen artifacts found within the historic topsoil layer. As the image illustrates, the highest density of kitchen remains, which include both glass and ceramic artifacts, was found to be in the southwestern section of the site within close proximity to the lost outbuildings of the 1879 map. One other high density area was visible farther to the southeast, but upon review of the artifacts from that shovel test, a large number of bottle glass shards were found to likely comprise one vessel. The vessel was most likely a single Keeley Cure bottle dating to later in the site's history and the large number of shards resulted in a spike in density. A similar high density area caused by large amounts of bottle glass can also be seen in the southeast section of figure 6.11.

The distribution pattern of kitchen artifacts displayed within figure 6.10 clearly displays a trend of high density towards the southwest of the site, but the cause of this pattern is unsure. The area of low density at the far southwest corner of the density image can be somewhat misleading. The area is not light in density because no kitchen artifacts were found within the area, but because the area was not sampled at all. In the section of the back yard a large magnolia tree with low hanging branches made sampling very difficult so the section was left untouched. However, in light of the high artifact density surrounding the tree, additional testing under and around the tree could add valuable insight into the true distribution of kitchen artifacts in the area. Unfortunately the land immediately south of the tree has been severely altered by road construction and any structural remains within the historic topsoil layer were likely destroyed.

The density map of kitchen artifacts within the next layer, TL3, does not carry on the same pattern of distribution as seen in the historic topsoil layer. (See figure 6.11) The area of higher density lies between shovel tests 15 and 16 to the east of unit number seven and the

unidentified brick feature within. The close proximity to the feature accompanied by the depth of the artifacts within the layer could mean that they are related within the same occupation period. Further analysis is needed to address the true relationship between the high density area and the unidentified brick feature.

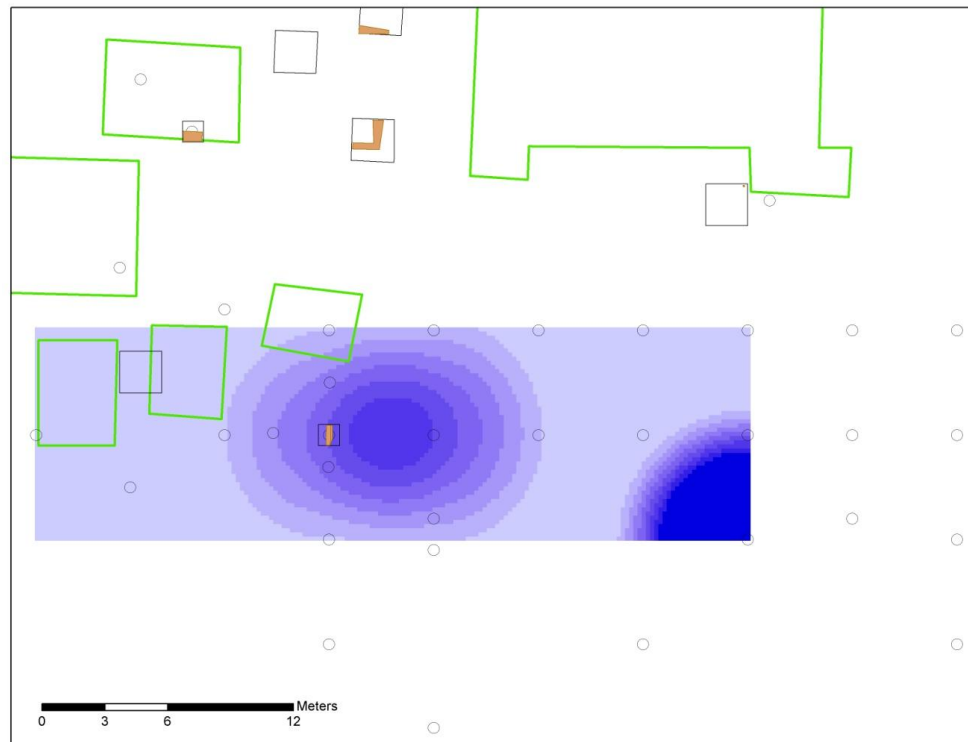


Figure 6.11. Kitchen artifact density map of TL3 soil layer. Image over 1879 building footprints.

The non-masonry architectural artifacts were also mapped within the site and can be seen in figures 6.12 and 6.13, including the historic topsoil layer and the TL3 transition layer below. Interestingly, the patterns of the architectural artifacts were quite similar to the patterns produced by the kitchen artifacts within the same soil layers. Such a similar distribution of seemingly dissimilar artifact types could indicate a previously unknown kitchen structure once in

the southwestern corner of the backyard which predated the 1879 Ward map. Another possible excuse for the similar patterns could be that the area was once used for refuse disposal, including household garbage and construction debris. Indeed the higher density areas within the southwest section of the historic topsoil layer seem to also be high in faunal remains, whiteware and stoneware ceramics, square nails, and fuel remains. (See Appendix F)

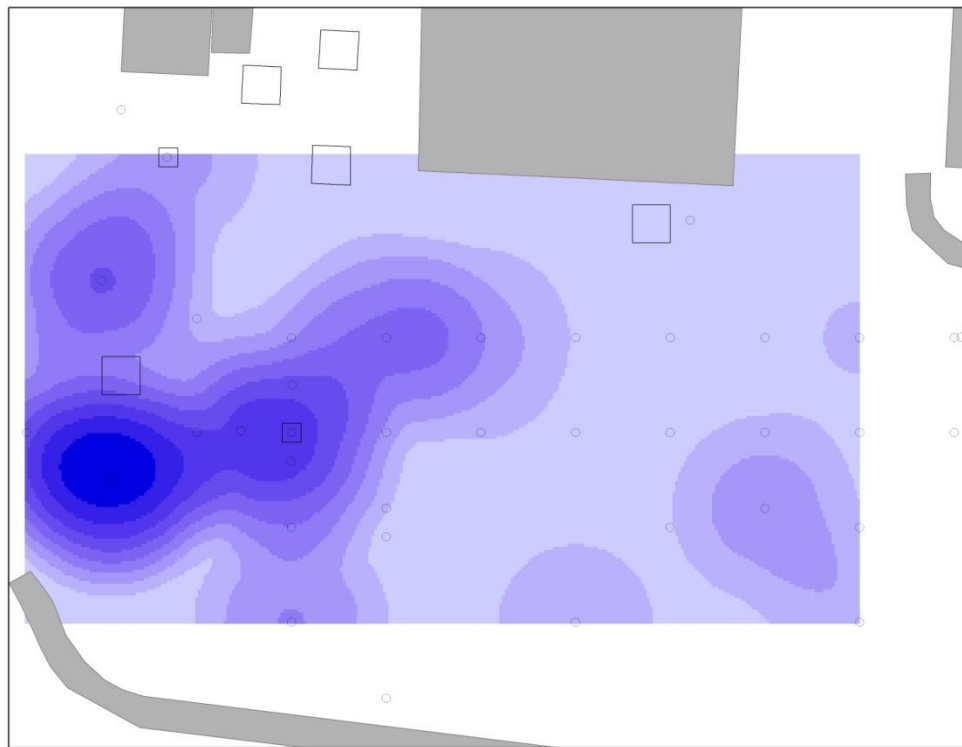


Fig. 6.12. Architectural artifact density map of historic topsoil layer. Over modern feature footprints in gray.

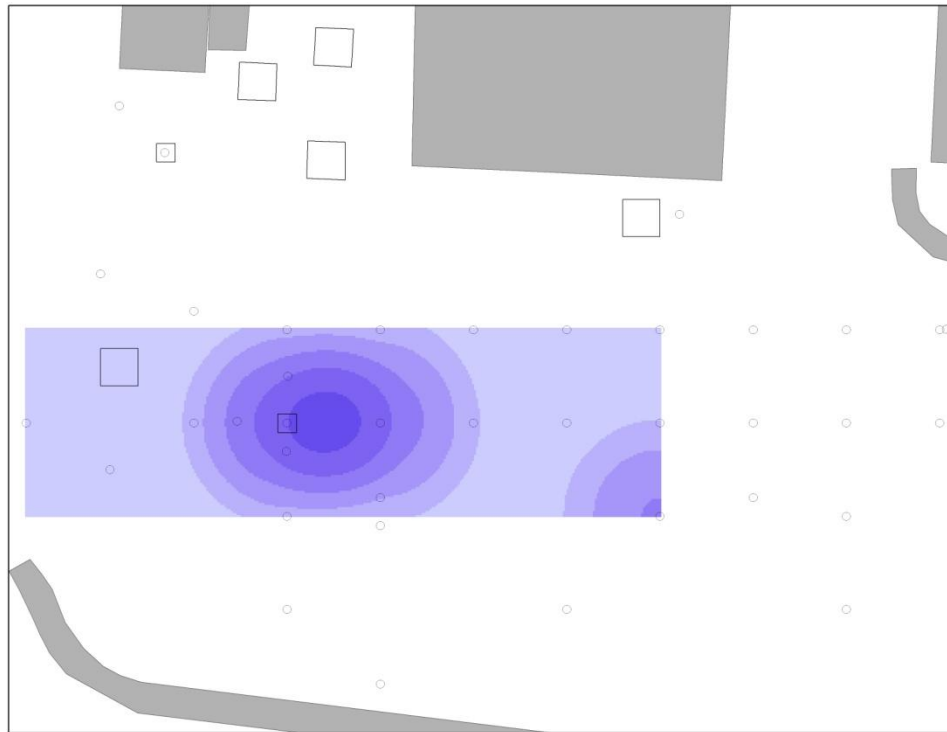


Fig. 6.13. Architectural artifact density map of TL3 soil layer. Image over modern feature footprints in gray.

Three-dimensional Soil Layers

Three-dimensional representations of soil layers were created based on data collected during excavation in order to see how changes around and within the Blandwood property may have affected the archaeological record. The top two layers over most of the site consisted of a modern topsoil layer and a clay fill layer, both dating to around 1969. (Poteat 2009, pers. Comm.) As with the analysis of the artifact density images, these layers can be largely ignored in order to focus on the historic topsoil layer found beneath which should hold the most useful archaeological data.

In chapter three, the changing landscape around the Blandwood property was described and the encroaching roadways have taken their toll on the property's back yard. The most important area of destruction was noted in the previous section regarding the high concentration of artifacts in the southwestern section of the backyard. This corner of the backyard has undergone what seems to be extensive road grading and has dropped in elevation considerably. While visible changes had been made to the modern landscape, the amount of damage to the historic topsoil layer underneath was largely unknown.

In figure 6.14, the modern surface elevation model is shown over the projected historic topsoil layer where considerable overlap occurs in the southwestern section of the site. The areas of the blue historic topsoil layer which protrude from the modern topsoil layer represent areas where the historic topsoil has been lost to road construction. It is within this same area that some of the highest densities of artifacts were also found which does not bode well for the archaeological record. With such a difference in the surface elevation of the modern surface versus the historic surface of the Blandwood Mansion of John M Morehead, the chances that any historic remains could be found outside of the backyard area are quite small. To be sure of this, tests would need to be administered in the areas surrounding the Blandwood property in order to identify any remaining historic topsoil.

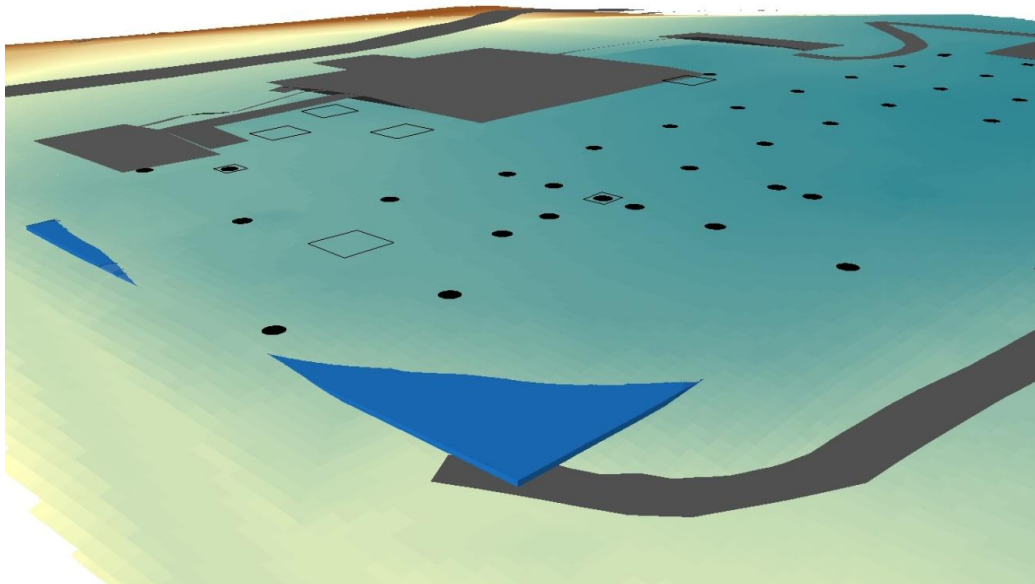


Figure 6.14. 3-D illustration of modern surface vs. historic surface model. Existing surface elevation model (Blue-green) shown over estimated historic topsoil layer (royal blue) with historic topsoil layer protruding through the southeastern face. Viewer facing northeast.

Final Thoughts

The techniques and methods used within this paper were intended to act as a guide and technical reference for archaeologists as well as to display how complex archaeological data could be transformed and separated to show what the artifacts and soil had to say about the people who touched them. Much more work went into the creation of the data and analysis reviewed above than could ever be included within this paper. While much has been said, much more is to be learned about how the results of these studies can be applied and compared with the multitude of other data resulting from the excavation. The interpretation of the archaeological patterns and remains illuminated within this paper above are simply the tip of the proverbial iceberg when considering the range of questions to be answered and the complex history of the Blandwood property.

Unfortunately, one question still remains unanswered. Who were the slaves mentioned within the 1850 slave census and what was their story? There still remains no answer to the question and much more work will have to be done to find one. Clues may yet remain within the recorded features and artifacts, the unexcavated ground of the southwestern yard, the interior of an unexplored dependency building, or in an unknown document still to come.

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Appendix A.

GIS Layer Information Table

Layer Name	Geometry	Creation Method	Layer Description
Modern			
Modern_Pts	Point	Total Station	XYZ points of modern land features and structures.
Modern_line	Line	User Created	Outline of modern features on property.
Modern_poly	Polygon	User Created	Filled polygons of modern features on property.
Topo_points	Point	Total Station	XYZ points of ground surface for DEM creation.
Grid			
Datum_pts	Point	GPS	XYZ points reference coordinates.
Grid_10m_pts	Point	User Created	Grid reference points at 10 meter intervals.
Grid_50cm_pts	Point	Hawth's Tools	Grid reference points at 50 cm intervals.
Grid_1m_pts	Point	Hawth's Tools	Grid reference points at 1 meter intervals.
Grid_poly	Polygon	Hawth's Tools	Site grid in 1 meter intervals (49x60).
Grid_In	Line	Hawth's Tools	Site grid in 1 meter intervals (49x60).
Archaeology			
All_level_pts	Point	User Created	All unit and ST points.
All_level_pts_z	Point	User Created	All unit and ST points with z values.
Metal_Det	Point	Total Station	XYZ points of metal detector hits on surface.
Feature_pts	Point	Total Station	XYZ points of feature surfaces and extents.
Feature_In	Line	User Created	Outline of excavation features from points.
Feature_ply	Polygon	User Created	Polygon feature extents from points.
Feature_ply_anno	Annotation	User Created	Feature annotation.
ST_Elev_Ply	Point	User Created	Shovel Tests divided by layer with z values and thickness.

ST_Elv_Pts	Point	User Created	Shovel Tests divided by layer with z values and thickness.
Shovel_tests	Point	User/Total	Surface XY points of shovel tests.
		Station	
Unit_pts	Point	Total Station	XYZ points of excavation unit corners.
Unit_Elv_pts	Point	User Created	XYZ points of unit soil layers from profile measurements.
Ground Penetrating Radar (GPR)			
GPR_Pts	Point	User/Total Station	Recorded GPR grid corner points with elevations.
GPR_poly	Polygon	User Created	Recorded GPR grid polygons from corner points.
Historic			
Footprint1879	Polygon	User Created	Digitized building footprints from 1879 Ward map.
Footprint1907	Polygon	User Created	Digitized building footprints from 1907 Sanborn map.
Footprint1919	Polygon	User Created	Digitized building footprints from 1919 Sanborn map.
Footprint1925	Polygon	User Created	Digitized building footprints from early 1925 Sanborn map.
Footprint1925Dec	Polygon	User Created	Digitized building footprints from December 1925 Sanborn map.
Historic_drive	Polygon	User Created	Digitized historic drive from aerial photo.
Georeferenced Layers			
East_dep_1846_rect	Raster	Georeferenced	ARC excavation map of 1846 eastern dependency foundations.
East_dep_keeley_rect	Raster	Georeferenced	ARC excavation map of Keeley Inst. eastern dependency foundations.
West_dep_1846_rect	Raster	Georeferenced	ARC excavation map of 1846 western dependency foundations.
Fig4_70cm_rect	Raster	Georeferenced	70 cm depth GPR imagery.
Fig6_60cm_rect	Raster	Georeferenced	60 cm depth GPR imagery.
Fig8_16cm_rect	Raster	Georeferenced	16 cm depth GPR imagery.

Fig8_46cm_rect	Raster	Georeferenced	46 cm depth GPR imagery.
Fig8_65cm_rect	Raster	Georeferenced	65 cm depth GPR imagery.
Fig8_76cm_rect	Raster	Georeferenced	76 cm depth GPR imagery.
Fig10_20cm_rect	Raster	Georeferenced	20 cm depth GPR imagery.
Fig10_50cm_rect	Raster	Georeferenced	50 cm depth GPR imagery.
Fig10_70cm_rect	Raster	Georeferenced	70 cm depth GPR imagery.
Fig10_90cm_rect	Raster	Georeferenced	90 cm depth GPR imagery.
Fig12_50cm_rect	Raster	Georeferenced	Combined 50cm depth GPR imagery.
Fig13_70cm_rect	Raster	Georeferenced	Combined 70cm depth GPR imagery.
Gboro_6in_aerial	Raster	Georeferenced	2007 aerial image including Blandwood property at 6 inch resolution.
Greensboro_1879_map	Raster	Georeferenced	Section of the Ward 1879 map including Blandwood property.
Keeley_aerial_rect	Raster	Georeferenced	Mid 20th century aerial image of Blandwood property & Keeley Inst.
Sanborn1907_rect	Raster	Georeferenced	Section of 1907 Sanborn Fire Insurance map with Blandwood property.
Sanborn1919_rect	Raster	Georeferenced	Section of 1919 Sanborn Fire Insurance map with Blandwood property.
Sanborn1925_rect	Raster	Georeferenced	Section of early 1925 Sanborn Fire Insurance map with Blandwood property.
Sanborn_Dec_1925_rect	Raster	Georeferenced	Section of December 1925 Sanborn Fire Insurance map with Blandwood property.
Surface_TIN	TIN	User Created	Surface elevation model of property created from topo points.
U1L1_Plan	Raster	Georeferenced	Plan drawing of excavation unit 1, layer 1.
U1L2_Plan	Raster	Georeferenced	Plan drawing of excavation unit 1, layer 2.
U1L2mid_Plan	Raster	Georeferenced	Plan drawing of excavation unit 1, mid layer 2.
Artifact Density Maps			

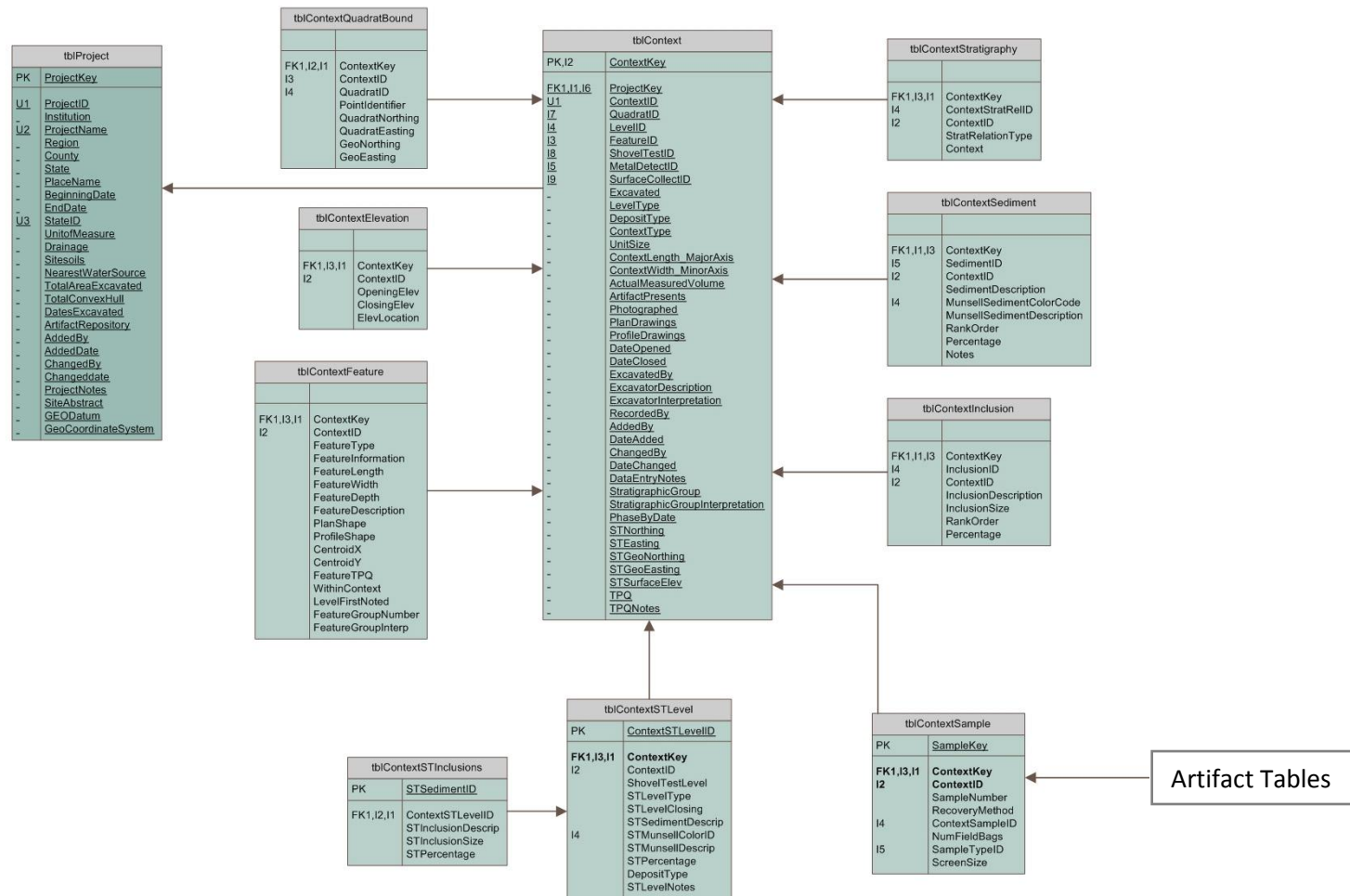
Allstnails	Raster	User Created	All nails within shovel tests.
Archt_qty_cf	Raster	User Created	All architectural artifacts within clay fill layer.
Archt_qty_ht	Raster	User Created	All architectural artifacts within historic topsoil layer.
Archt_qty_mt	Raster	User Created	All architectural artifacts within modern topsoil layer.
Archt_qty_tl3	Raster	User Created	All architectural artifacts within transition layer 3.
Artsum_cf	Raster	User Created	Sum of all artifacts within clay fill layer
Artsum_ht	Raster	User Created	Sum of all artifacts within historic topsoil layer
Artsum_mt	Raster	User Created	Sum of all artifacts within modern topsoil layer
Artsum_tl3	Raster	User Created	Sum of all artifacts within transition layer 3.
Bone_cf	Raster	User Created	Bone artifacts within clay fill layer.
Bone_ht	Raster	User Created	Bone artifacts within historic topsoil layer.
Bone_mt	Raster	User Created	Bone artifacts within modern topsoil layer.
CW_cf	Raster	User Created	Creamware artifacts within clay fill layer.
CW_ht	Raster	User Created	Creamware artifacts within historic topsoil layer.
CW_mt	Raster	User Created	Creamware artifacts within modern topsoil layer.
Fuel_cf	Raster	User Created	Fuel and Fuel Byproducts within clay fill layer.
Fuel_ht	Raster	User Created	Fuel and Fuel Byproducts within historic topsoil layer.
Fuel_mt	Raster	User Created	Fuel and Fuel Byproducts within modern topsoil layer.
Glass_cf	Raster	User Created	All glass within clay fill layer.
Glass_ht	Raster	User Created	All glass within historic topsoil layer.
Glass_mt	Raster	User Created	All glass within modern topsoil layer.
IS_cf	Raster	User Created	Ironstone within clay fill layer.
IS_ht	Raster	User Created	Ironstone within historic topsoil layer.
IS_mt	Raster	User Created	Ironstone within modern topsoil layer.
Kitchen_cf	Raster	User Created	Kitchen artifacts within clay fill layer.
Kitchen_ht	Raster	User Created	Kitchen artifacts within historic topsoil layer.

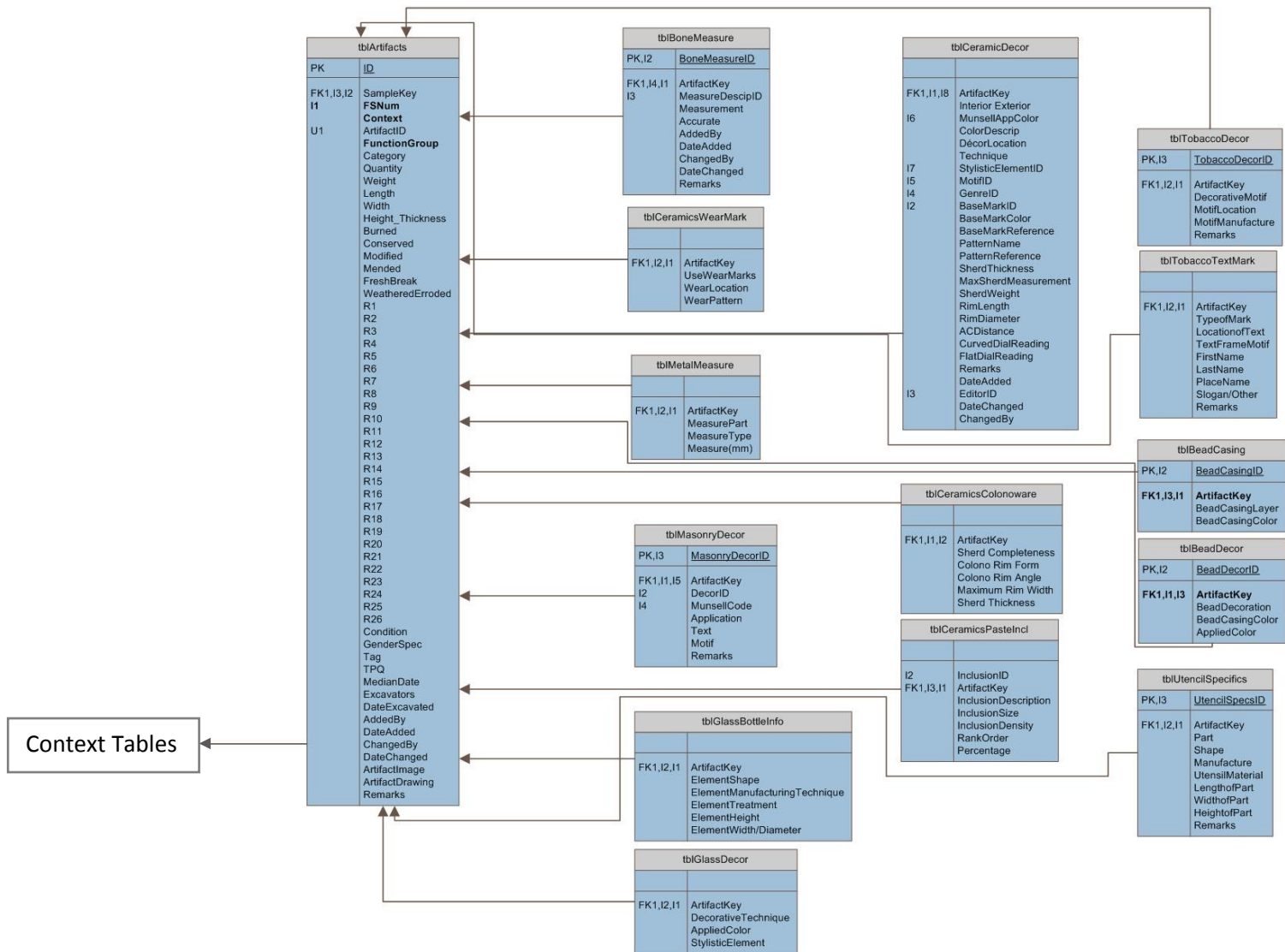
Kitchen_mt	Raster	User Created	Kitchen artifacts within modern topsoil layer.
Kitchen_tl3	Raster	User Created	Kitchen artifacts within transition layer 3.
KitchGlass_cf	Raster	User Created	Kitchen glass within clay fill layer.
KitchGlass_ht	Raster	User Created	Kitchen glass within historic topsoil layer.
Masonry_cf	Raster	User Created	Masonry artifacts within clay fill layer.
Masonry_ht	Raster	User Created	Masonry artifacts within historic topsoil layer.
Masonry_tl3	Raster	User Created	Masonry artifacts within transition layer 3.
Metal_cf	Raster	User Created	Metal artifacts within clay fill layer.
Metal_ht	Raster	User Created	Metal artifacts within historic topsoil layer.
Metal_mt	Raster	User Created	Metal artifacts within modern topsoil layer.
NailsCut_cf	Raster	User Created	Cut nails within clay fill layer.
NailsCut_ht	Raster	User Created	Cut nails within historic topsoil layer.
NailsCut_mt	Raster	User Created	Cut nails within modern topsoil layer.
NailsCut_all	Raster	User Created	All cut nails summed.
Nailsqun_all	Raster	User Created	Square and unknown nails summed.
Nailsqun_cf	Raster	User Created	Square and unknown nails within clay fill layer.
Nailsqun_ht	Raster	User Created	Square and unknown within historic topsoil layer.
Nailsqun_mt	Raster	User Created	Square and unknown within modern topsoil layer.
Nailwire_cf	Raster	User Created	Wire nails within clay fill layer.
Porcelain_ht	Raster	User Created	Porcelain artifacts within historic topsoil layer.
Porcelain_mt	Raster	User Created	Porcelain artifacts within modern topsoil layer.
PW_cf	Raster	User Created	Pearlware artifacts within clay fill layer.
PW_ht	Raster	User Created	Pearlware artifacts within historic topsoil layer.
PW_mt	Raster	User Created	Pearlware artifacts within modern topsoil layer.
PW_tl3	Raster	User Created	Pearlware artifacts within transition layer 3.
Redware_ht	Raster	User Created	Redware artifacts within historic topsoil layer.
Redware_mt	Raster	User Created	Redware artifacts within modern topsoil layer.

Stoneware_cf	Raster	User Created	Stoneware artifacts within clay fill layer.
Stoneware_ht	Raster	User Created	Stoneware artifacts within historic topsoil layer.
Stoneware_mt	Raster	User Created	Stoneware artifacts within modern topsoil layer.
Winqty_cf	Raster	User Created	Window glass within clay fill layer.
Winqty_gr	Raster	User Created	Window glass within gravel layer.
Winqty_ht	Raster	User Created	Window glass within historic topsoil layer.
Winqty_mt	Raster	User Created	Window glass within modern topsoil layer.
Winqty_tl3	Raster	User Created	Window glass within transition layer 3.
WW_cf	Raster	User Created	Whiteware artifacts within clay fill layer.
WW_gr	Raster	User Created	Whiteware artifacts within gravel layer.
WW_ht	Raster	User Created	Whiteware artifacts within historic topsoil layer.
WW_mt	Raster	User Created	Whiteware artifacts within modern topsoil layer.

Appendix B.

Full Database Table Relationship Flowchart





Appendix C.

Blandwood Database User Interface Images

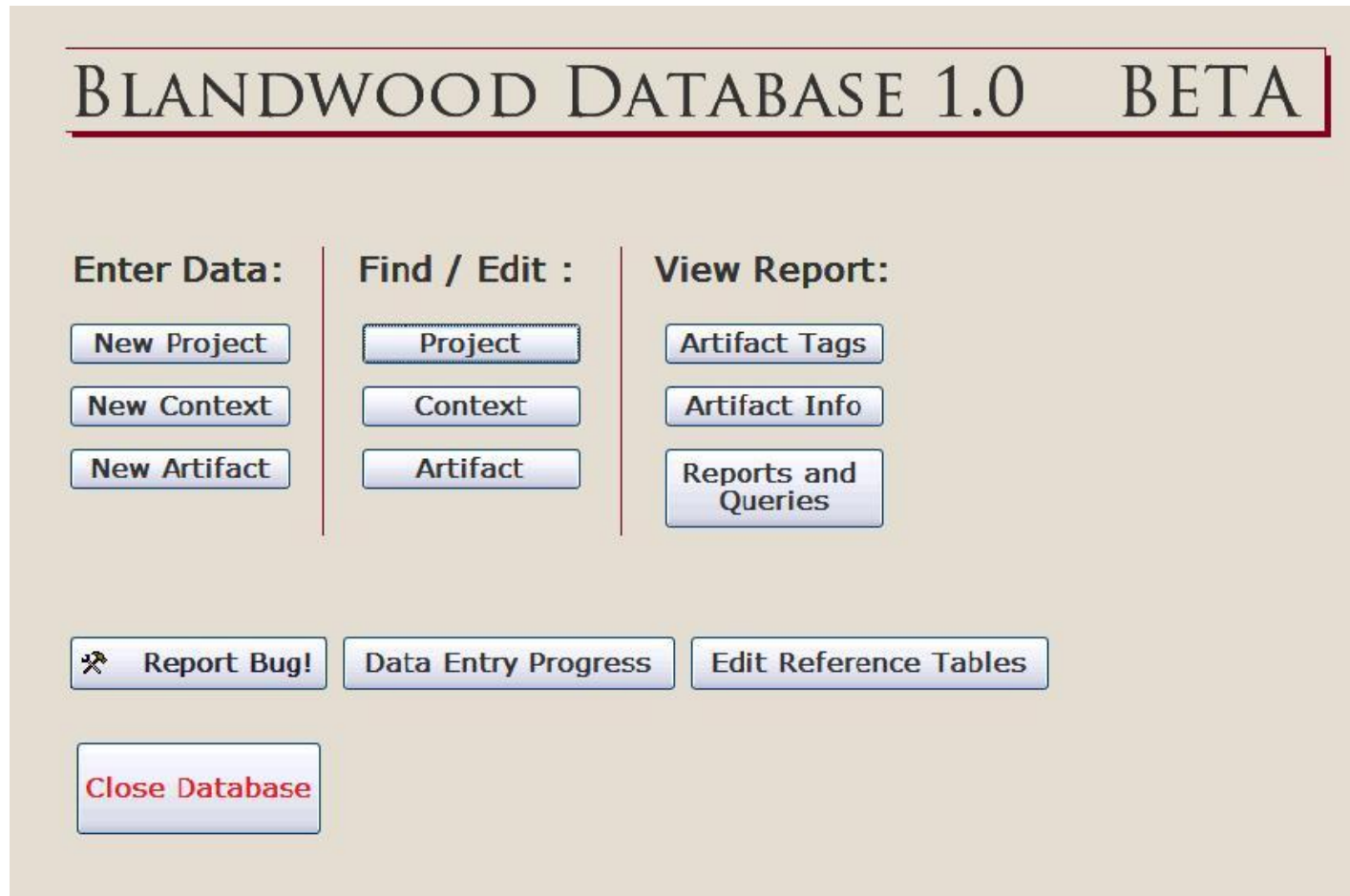


Fig. C.1. Blandwood Database main menu screen.

Project Form

Project Name:	Blandwood Mansion	Dates Excavated:	
State ID:	31GF199**	Artifact Repository:	UNCG Archaeology Lab Mc. 52
Place Name:	Blandwood Mansion	Geographic Datum:	
Project ID:	Blandwood	Geographic Coordinate System:	SPC North Carolina
Site Abbreviation:	BL	Added By:	Will
Region:	Central Carolina	Date Added:	
County:	Guilford	Changed By:	
State:	NC	Date Changed:	
Institution:	UNC Greensboro	Project Notes:	
BeginningDate:	5/27/2008		
Ending Date:	6/28/2008		
Unit of Measure:	Metric		
Drainage:			
Site Soils:		Site Abstract:	
Near Water Source?:			
Total Area Excavated:			
TotalConvexHull:			

Project Key# : 2

[Attach Objects to Project](#)
[Add New Project](#)
[Open Context Form](#)
[Back to Main Menu](#)

[Bug!](#)
[⏮](#)
[⏪](#)
[⏩](#)
[⏭](#)
[Menu Items](#)

Fig. C.2. Blandwood Database project form.

Context Form

Context ID:	ST1	2		
Project:	Blandwood	Excavated By:	SB TC	Sample
Context Type:	ST (Shovel Test)	Excavator Notes:	All one FS bag (mixed levels) Brick and Mortar in zone B Kept all brick and mortar	ST Levels
Unit ID:		Recorded By:	SB	Quadrat Boundries
Feature ID:		ST Grid Northing:	10	Associated Features
Shovel Test ID:	ST1	ST Grid Easting:	15	Elevations
Metal Detector ID:		ST Geo. Northing:	257594.322799	Sediment
Surface Collection ID:		ST Geo. Easting:	537893.2792	Inclusions
Level ID:		ST Surface Elev.:	253.752029	Stratigraphy
Excavated?:	<input checked="" type="checkbox"/>	Stratigraphic Group:		Attach Object
Artifacts?:	<input checked="" type="checkbox"/>	Strat. Group Interpretation:		New Context
Photographed?:	<input checked="" type="checkbox"/>	Phase by Date:		Back to Main Menu
Plan Drawing?:	<input type="checkbox"/>	TPQ Date:		
Profile Drawing?:	<input checked="" type="checkbox"/>	TPQ Notes:		
Level Type:	Natural	Data Entry Notes:		
Deposit Type:	NA	Added By:	Will	
Unit Size:	50cm round	Date Added:	4/21/2009 3:21:23 PM	
Length (major axis):		Changed By:	Will Robinson	
Width (minor axis):		Date Changed:	4/23/2009 12:27:54 PM	
Measured Volume:				
Date Opened:	6/04/2008			
Date Closed:	06/04/2008			

[Add Menu Item](#)
[Bug!](#)
[⏮](#)
[⏪](#)
[⏩](#)
[⏭](#)
[Menu Items](#)

Fig. C.3. Blandwood Database context form.

Context Sample (FS #)

ContextKey: 15

Context ID: **ST1**

Sample Number: **BL19**
Remember Site Abbreviation First!

Sample Type ID: All Collected

Recovery Method: Dry Screen (DRS)

Screen Size: 1/4 inch

of Bags:

Notes:

New Sample **Close Form**

Bug! **⏮** **⏪** **⏩** **⏭** **Menu Items**

ContextKey	Sample Number	Context ID	Sample Type ID	Recovery Method	Screen Size	# of Bags	Notes
15	BL19	ST1	All Collected	Dry Screen (DRS)	1/4 inch		
			All Collected	Dry Screen (DRS)	1/4 Inch		

Fig. C.4. Blandwood Database context sample form.

Artifact Entry Form

Remember the site code before FS#

FS #: **Context:** **Artifact ID:** BL19.1

Function Group: **Category:**

Quantity: **Burned?** ☒

Weight (g): **Conserved?** ☒

Length (mm): **Modified?** ☐

Width (mm): **Mended?** ☒

Height/Thickness: **Fresh Break?** ☐

Prehistoric ☐ **Weathered/Erroded?** ☐

Decorated? ☐

Condition:

Gender Specific:

TPQ:

Median Date:

Create ID Tag ☐

Advanced Forms

Ceramic Decoration

Paste Inclusions

Wear Marks

Colonoware Form

Material: **Paste/Body Color:**

Ware: **MCD Type:**

Exterior Surface:

Interior Surface:

Vessel Category:

Completeness:

Form:

Mended Form:

Manufacture:

Oxidized/Reduced:

Paste Inclusions:

Burn Description:

Remarks:

Next Artifact

New FS#

Back to Main Menu

Bug!

Add Menu Item

Progress Notes

Context

Artifact Image:

Added By: wrrobins

Date Added: 12/10/2009 3:07:10 PM

Drawing:

Record: 1 of 1664 Unfiltered Search

Fig. C.5. Blandwood Database artifact entry form.

Ceramic Decoration Form

Interior Exterior:	<input type="text"/>	<input type="button" value="v"/>	Pattern Reference:	<input type="text"/>
Technique:	<input type="text"/>	<input type="button" value="v"/>	Sherd Thickness:	<input type="text"/>
Munsell Color:	<input type="text"/>	<input type="button" value="v"/>	Max Sherd Measurement:	<input type="text"/>
Color Descrip.:	<input type="text"/>	<input type="button" value="v"/>	Sherd Weight:	<input type="text"/>
Décor Location:	<input type="text"/>	<input type="button" value="v"/>	Rim Length:	<input type="text"/>
Stylistic Element:	<input type="text"/>	<input type="button" value="v"/>	Rim Diameter:	<input type="text"/>
Motif:	<input type="text"/>	<input type="button" value="v"/>	AC Distance:	<input type="text"/>
Genre:	<input type="text"/>	<input type="button" value="v"/>	Curved Dial Reading:	<input type="text"/>
Base Mark:	<input type="text"/>	<input type="button" value="v"/>	Flat Dial Reading:	<input type="text"/>
Base Mark Color:	<input type="text"/>	<input type="button" value="v"/>	Remarks:	
Base Mark Reference:	<input type="text"/>			
Pattern Name:	<input type="text"/>			

Add Another Attribute

I'm Done

Bug!

⏮

⏪

⏩

⏭

Menu Items

ArtifactKey:

Fig. C.6. Blandwood Database ceramic decoration subform.

Appendix D.

Database User Interface VB Code Sample

Main Menu Coding

Option Compare Database

Option Explicit

Private Sub cmdOpenProjectForm_Click()

On Error GoTo Err_cmdOpenProjectForm_Click

Dim stDocName As String

Dim stLinkCriteria As String

stDocName = "frmProject"

DoCmd.OpenForm stDocName, , , stLinkCriteria

'MsgBox ("Please use the search bar below to look for the project.")

Exit_cmdOpenProjectForm_Click:

Exit Sub

Err_cmdOpenProjectForm_Click:

MsgBox Err.Description

Resume Exit_cmdOpenProjectForm_Click

End Sub

Private Sub cmdOpenArtifactForm_Click()

On Error GoTo Err_cmdOpenArtifactForm_Click

Dim stDocName As String

Dim stLinkCriteria As String

stDocName = "frmArtifacts"

DoCmd.OpenForm stDocName, , , stLinkCriteria

'MsgBox ("Please use the search bar below to look for the artifact.")

Exit_cmdOpenArtifactForm_Click:

Exit Sub

```

Err_cmdOpenArtifactForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenArtifactForm_Click

End Sub
Private Sub cmdNewProject_Click()
On Error GoTo Err_cmdNewProject_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmProject"
    DoCmd.OpenForm stDocName, , , stLinkCriteria
    DoCmd.GoToRecord , , acNewRec

Exit_cmdNewProject_Click:
    Exit Sub

Err_cmdNewProject_Click:
    MsgBox Err.Description
    Resume Exit_cmdNewProject_Click

End Sub
Private Sub cmdNewContext_Click()
On Error GoTo Err_cmdNewContext_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmContext"
    DoCmd.OpenForm stDocName, , , stLinkCriteria
    DoCmd.GoToRecord , , acNewRec

Exit_cmdNewContext_Click:
    Exit Sub

Err_cmdNewContext_Click:
    MsgBox Err.Description
    Resume Exit_cmdNewContext_Click

End Sub
Private Sub cmdNewArtifact_Click()

```



```

On Error GoTo Err_cmdNewArtifact_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmArtifacts"
    DoCmd.OpenForm stDocName, , , stLinkCriteria
    DoCmd.GoToRecord , , acNewRec

Exit_cmdNewArtifact_Click:
    Exit Sub

Err_cmdNewArtifact_Click:
    MsgBox Err.Description
    Resume Exit_cmdNewArtifact_Click

End Sub

Private Sub cmdPreviewTags_Click()

End Sub
Private Sub cmdOpen_ArtifactTagsReport_Click()
On Error GoTo Err_cmdOpen_ArtifactTagsReport_Click
    Dim stDocName As String

    stDocName = "repArtifactTagReport"
    DoCmd.OpenReport stDocName, acViewReport, , , OpenArgs

Exit_cmdOpen_ArtifactTagsReport_Click:
    Exit Sub

Err_cmdOpen_ArtifactTagsReport_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpen_ArtifactTagsReport_Click

End Sub
Private Sub cmdOpenBugNotesForm_Click()
On Error GoTo Err_cmdOpenBugNotesForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmBugNotes"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

```

```

Exit_cmdOpenBugNotesForm_Click:
    Exit Sub

Err_cmdOpenBugNotesForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenBugNotesForm_Click

End Sub
Private Sub cmdOpenDataProgressForm_Click()
On Error GoTo Err_cmdOpenDataProgressForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmDataEntryProgress"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenDataProgressForm_Click:
    Exit Sub

Err_cmdOpenDataProgressForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenDataProgressForm_Click

End Sub
Private Sub cmdOpenEditRefForm_Click()
On Error GoTo Err_cmdOpenEditRefForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmEditReferenceTables"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenEditRefForm_Click:
    Exit Sub

Err_cmdOpenEditRefForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenEditRefForm_Click

End Sub
Private Sub cmdOpenArtifactTagsReport_Click()
On Error GoTo Err_cmdOpenArtifactTagsReport_Click

```

```

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "Labels tblArtifacts"
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenArtifactTagsReport_Click:
Exit Sub

Err_cmdOpenArtifactTagsReport_Click:
MsgBox Err.Description
Resume Exit_cmdOpenArtifactTagsReport_Click

End Sub
Private Sub cmdTagReport_Click()
On Error GoTo Err_cmdTagReport_Click
Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "repArtifactTagReport"
DoCmd.OpenReport stDocName, acViewPreview, , stLinkCriteria

Exit_cmdTagReport_Click:
Exit Sub

Err_cmdTagReport_Click:
MsgBox Err.Description
Resume Exit_cmdTagReport_Click

End Sub
Private Sub cmdOpenArtifactInfoReport_Click()
On Error GoTo Err_cmdOpenArtifactInfoReport_Click

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "repArtifactInfoSheet"
DoCmd.OpenReport stDocName, acViewPreview, , stLinkCriteria

Exit_cmdOpenArtifactInfoReport_Click:
Exit Sub

Err_cmdOpenArtifactInfoReport_Click:

```

```

    MsgBox Err.Description
    Resume Exit_cmdOpenArtifactInfoReport_Click

End Sub
Private Sub cmdCloseDatabase_Click()
On Error GoTo Err_cmdCloseDatabase_Click

    DoCmd.Quit

Exit_cmdCloseDatabase_Click:
    Exit Sub

Err_cmdCloseDatabase_Click:
    MsgBox Err.Description
    Resume Exit_cmdCloseDatabase_Click

End Sub
Private Sub cmdOpenCommonQueryForm_Click()
On Error GoTo Err_cmdOpenCommonQueryForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmCommonQueries"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenCommonQueryForm_Click:
    Exit Sub

Err_cmdOpenCommonQueryForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenCommonQueryForm_Click

End Sub
Private Sub cmdOpenContextForm_Click()
On Error GoTo Err_cmdOpenContextForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String
    Dim project As String
    Dim key As Integer

    project = InputBox("Enter project abbreviation code")

    If project = "BL" Then

```

```

        key = 2
    ElseIf project = "TCI" Then
        key = 5
    ElseIf project = "ARC" Then
        key = 6
    End If
    stDocName = "frmContext"

    stLinkCriteria = "[ProjectKey]=" & key
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenContextForm_Click:
    Exit Sub

Err_cmdOpenContextForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenContextForm_Click

End Sub

```

Project Form Coding

Option Compare Database

```

Private Sub cmdCloseProjectForm_Click()
On Error GoTo Err_cmdCloseProjectForm_Click

```

```

    If Me.Dirty Then Me.Dirty = False
    DoCmd.Close

```

```

Exit_cmdCloseProjectForm_Click:
    Exit Sub

```

```

Err_cmdCloseProjectForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdCloseProjectForm_Click

```

```

End Sub
Private Sub cmdOpenContextForm_Click()
On Error GoTo Err_cmdOpenContextForm_Click

```

```

    Dim stDocName As String

```

```

Dim stLinkCriteria As String

stDocName = "frmContext"

stLinkCriteria = "[ProjectKey]=" & Me![ProjectKey]
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenContextForm_Click:
Exit Sub

Err_cmdOpenContextForm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenContextForm_Click

End Sub
Private Sub cmdOpenfrmProjectObjects_Click()
On Error GoTo Err_cmdOpenfrmProjectObjects_Click

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmProjectObjects"

stLinkCriteria = "[ProjectKey]=" & Me![ProjectKey]
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenfrmProjectObjects_Click:
Exit Sub

Err_cmdOpenfrmProjectObjects_Click:
MsgBox Err.Description
Resume Exit_cmdOpenfrmProjectObjects_Click

End Sub
Private Sub cmdLastRecord_Click()
On Error GoTo Err_cmdLastRecord_Click

DoCmd.GoToRecord , , acLast

Exit_cmdLastRecord_Click:
Exit Sub

Err_cmdLastRecord_Click:
MsgBox Err.Description

```

```

        Resume Exit_cmdLastRecord_Click

End Sub
Private Sub cmdFirstRecord_Click()
On Error GoTo Err_cmdFirstRecord_Click

        DoCmd.GoToRecord , , acFirst

Exit_cmdFirstRecord_Click:
Exit Sub

Err_cmdFirstRecord_Click:
MsgBox Err.Description
Resume Exit_cmdFirstRecord_Click

End Sub
Private Sub cmdNextRecord_Click()
On Error GoTo Err_cmdNextRecord_Click

        DoCmd.GoToRecord , , acNext

Exit_cmdNextRecord_Click:
Exit Sub

Err_cmdNextRecord_Click:
MsgBox Err.Description
Resume Exit_cmdNextRecord_Click

End Sub
Private Sub cmdPrevRecord_Click()
On Error GoTo Err_cmdPrevRecord_Click

        DoCmd.GoToRecord , , acPrevious

Exit_cmdPrevRecord_Click:
Exit Sub

Err_cmdPrevRecord_Click:
MsgBox Err.Description
Resume Exit_cmdPrevRecord_Click

End Sub

```

```

Private Sub cmdOpenBugForm_Click()
On Error GoTo Err_cmdOpenBugForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmBugNotes"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenBugForm_Click:
Exit Sub

Err_cmdOpenBugForm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenBugForm_Click

End Sub
Private Sub cmdOpenEditRefForm_Click()
On Error GoTo Err_cmdOpenEditRefForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmEditReferenceTables"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenEditRefForm_Click:
Exit Sub

Err_cmdOpenEditRefForm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenEditRefForm_Click

End Sub
Private Sub cmdAddNewProject_Click()
On Error GoTo Err_cmdAddNewProject_Click

    DoCmd.GoToRecord , , acNewRec

Exit_cmdAddNewProject_Click:
Exit Sub

Err_cmdAddNewProject_Click:
MsgBox Err.Description

```



```

Resume Exit_cmdAddNewProject_Click

End Sub
Private Sub cmdOpenContextFrm_Click()
On Error GoTo Err_cmdOpenContextFrm_Click

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmContext"

stLinkCriteria = "[ProjectKey]=" & Me![ProjectKey]
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenContextFrm_Click:
Exit Sub

Err_cmdOpenContextFrm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenContextFrm_Click

End Sub

```

Context Form Coding

```

Option Compare Database
Option Explicit

Private Sub cboProject_AfterUpdate()

Dim code As Integer

If Me.cboProject.Value = "Blandwood" Then
Me.ProjectKey.Value = "2"
ElseIf Me.cboProject.Value = "TCI" Then
Me.ProjectKey.Value = "5"
ElseIf Me.cboProject.Value = "ARC" Then
Me.ProjectKey.Value = "6"
ElseIf Me.cboProject.Value <> "Blandwood" Then
code = InputBox("Please enter the ProjectKey number.", "Project Key")
Me.ProjectKey.Value = code
ElseIf Me.cboProject.Value <> "TCI" Then
code = InputBox("Please enter the ProjectKey number.", "Project Key")

```

```

    Me.ProjectKey.Value = code
ElseIf Me.cboProject.Value <> "ARC" Then
    code = InputBox("Please enter the ProjectKey number.", "Project Key")
    Me.ProjectKey.Value = code
Else: Stop

End If

```

```

End Sub

```

```

Private Sub cboProject_BeforeUpdate(Cancel As Integer)

```

```

End Sub

```

```

Private Sub cmdCloseContextForm_Click()
On Error GoTo Err_cmdCloseContextForm_Click

```

```

    If Me.Dirty Then Me.Dirty = False
    DoCmd.Close

```

```

Exit_cmdCloseContextForm_Click:
Exit Sub

```

```

Err_cmdCloseContextForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdCloseContextForm_Click

```

```

End Sub
Private Sub cmdOpenElevationForm_Click()
On Error GoTo Err_cmdOpenElevationForm_Click

```

```

    DoCmd.RunCommand acCmdSaveRecord

```

```

    Dim stDocName As String
    Dim stLinkCriteria As String

```

```

    stDocName = "frmContextElevation"

```

```

    stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
    DoCmd.OpenForm stDocName, , , stLinkCriteria

```

```

Exit_cmdOpenElevationForm_Click:
Exit Sub

```

```

Err_cmdOpenElevationForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenElevationForm_Click

End Sub
Private Sub cmdOpenFeatureForm_Click()
On Error GoTo Err_cmdOpenFeatureForm_Click

    DoCmd.RunCommand acCmdSaveRecord

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmContextFeature"

    stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenFeatureForm_Click:
    Exit Sub

Err_cmdOpenFeatureForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenFeatureForm_Click

End Sub
Private Sub cmdOpenInclusionForm_Click()
On Error GoTo Err_cmdOpenInclusionForm_Click

    DoCmd.RunCommand acCmdSaveRecord

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmContextInclusion"

    stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenInclusionForm_Click:
    Exit Sub

Err_cmdOpenInclusionForm_Click:
    MsgBox Err.Description

```

```

Resume Exit_cmdOpenInclusionForm_Click

End Sub
Private Sub cmdOpenBoundryForm_Click()
On Error GoTo Err_cmdOpenBoundryForm_Click

DoCmd.RunCommand acCmdSaveRecord

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmContextQuadrat"

stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenBoundryForm_Click:
Exit Sub

Err_cmdOpenBoundryForm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenBoundryForm_Click

End Sub
Private Sub cmdOpenSampleForm_Click()
On Error GoTo Err_cmdOpenSampleForm_Click

DoCmd.RunCommand acCmdSaveRecord

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmContextSample"

stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenSampleForm_Click:
Exit Sub

Err_cmdOpenSampleForm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenSampleForm_Click

End Sub

```

```

Private Sub cmdOpenSediment_Click()
On Error GoTo Err_cmdOpenSediment_Click

    DoCmd.RunCommand acCmdSaveRecord

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmContextSediment"

    stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenSediment_Click:
    Exit Sub

Err_cmdOpenSediment_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenSediment_Click

End Sub
Private Sub cmdOpenSTLevelsForm_Click()
On Error GoTo Err_cmdOpenSTLevelsForm_Click

    DoCmd.RunCommand acCmdSaveRecord

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmContextSTLevel"

    stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenSTLevelsForm_Click:
    Exit Sub

Err_cmdOpenSTLevelsForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenSTLevelsForm_Click

End Sub
Private Sub cmdOpenStratigraphyForm_Click()
On Error GoTo Err_cmdOpenStratigraphyForm_Click

```

```

DoCmd.RunCommand acCmdSaveRecord

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmContextStratigraphy"

stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenStratigraphyForm_Click:
Exit Sub

Err_cmdOpenStratigraphyForm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenStratigraphyForm_Click

End Sub
Private Sub cmdNewContextRecord_Click()
On Error GoTo Err_cmdNewContextRecord_Click

DoCmd.GoToRecord , , acNewRec

Exit_cmdNewContextRecord_Click:
Exit Sub

Err_cmdNewContextRecord_Click:
MsgBox Err.Description
Resume Exit_cmdNewContextRecord_Click

End Sub
Private Sub cmdOpenSTLevelForm_Click()
On Error GoTo Err_cmdOpenSTLevelsForm_Click

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmContextSTLevel"

stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenSTLevelsForm_Click:
Exit Sub

```

```

Err_cmdOpenSTLevelsForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenSTLevelsForm_Click

End Sub

Private Sub ContextKey_BeforeUpdate(Cancel As Integer)
ContextKey.Text = ContextKey.Value
End Sub

Private Sub ContextType_AfterUpdate()
If Me.ContextType.Text = "ST (Shovel Test)" Then
    Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = True
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = True
    Me.MetalDetectID.Enabled = False
    Me.SurfaceCollectID.Enabled = False
    Me.LevelType.Enabled = False
    Me.DepositType.Enabled = False
    Me.cmdOpenSampleForm.Enabled = True
    Me.cmdOpenSTLevelsForm.Enabled = True
    Me.cmdOpenBoundryForm.Enabled = False
    Me.cmdOpenFeatureForm.Enabled = True
    Me.cmdOpenElevationForm.Enabled = False
    Me.cmdOpenSediment.Enabled = False
    Me.cmdOpenInclusionForm.Enabled = False
    Me.cmdOpenStratigraphyForm.Enabled = True
    Me.STGeoEasting.Enabled = True
    Me.STGeoNorthing.Enabled = True
    Me.STPEasting.Enabled = True
    Me.STPNorthing.Enabled = True
    Me.STSurfaceElev.Enabled = True
    Me.UnitSize.Enabled = True
ElseIf Me.ContextType.Text = "F (Feature)" Then
    Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = True
    Me.FeatureID.Enabled = True
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = False
    Me.SurfaceCollectID.Enabled = False
    Me.LevelType.Enabled = True
    Me.DepositType.Enabled = True

```

```

Me.cmdOpenSampleForm.Enabled = True
Me.cmdOpenSTLevelsForm.Enabled = False
Me.cmdOpenBoundryForm.Enabled = False
Me.cmdOpenFeatureForm.Enabled = False
Me.cmdOpenElevationForm.Enabled = True
Me.cmdOpenSediment.Enabled = True
Me.cmdOpenInclusionForm.Enabled = True
Me.cmdOpenStratigraphyForm.Enabled = True
Me.STGeoEasting.Enabled = False
Me.STGeoNorthing.Enabled = False
Me.STPEasting.Enabled = False
Me.STPNorthing.Enabled = False
Me.STSurfaceElev.Enabled = False
Me.UnitSize.Enabled = False
Elseif Me.ContextType.Text = "U (Unit/Quad)" Then
    Me.QuadratID.Enabled = True
    Me.LevelID.Enabled = True
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = False
    Me.SurfaceCollectID.Enabled = False
    Me.LevelType.Enabled = True
    Me.DepositType.Enabled = True
    Me.cmdOpenSampleForm.Enabled = True
    Me.cmdOpenSTLevelsForm.Enabled = False
    Me.cmdOpenBoundryForm.Enabled = True
    Me.cmdOpenFeatureForm.Enabled = True
    Me.cmdOpenElevationForm.Enabled = True
    Me.cmdOpenSediment.Enabled = True
    Me.cmdOpenInclusionForm.Enabled = True
    Me.cmdOpenStratigraphyForm.Enabled = True
    Me.STGeoEasting.Enabled = False
    Me.STGeoNorthing.Enabled = False
    Me.STPEasting.Enabled = False
    Me.STPNorthing.Enabled = False
    Me.STSurfaceElev.Enabled = False
    Me.UnitSize.Enabled = True
Elseif Me.ContextType.Text = "MD (Metal Detector Hit)" Then
    Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = False
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = True
    Me.SurfaceCollectID.Enabled = False
    Me.LevelType.Enabled = False

```



```

Me.DepositType.Enabled = True
Me.UnitSize.Enabled = False
Me.cmdOpenSampleForm.Enabled = True
Me.cmdOpenSTLevelsForm.Enabled = False
Me.cmdOpenBoundryForm.Enabled = False
Me.cmdOpenFeatureForm.Enabled = False
Me.cmdOpenElevationForm.Enabled = True
Me.cmdOpenSediment.Enabled = False
Me.cmdOpenInclusionForm.Enabled = False
Me.cmdOpenStratigraphyForm.Enabled = False
Me.STGeoEasting.Enabled = False
Me.STGeoNorthing.Enabled = False
Me.STPEasting.Enabled = False
Me.STPNorthing.Enabled = False
Me.STSurfaceElev.Enabled = False
Me.UnitSize.Enabled = False
Elseif Me.ContextType.Text = "SC (Surface Collection)" Then
    Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = False
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = False
    Me.SurfaceCollectID.Enabled = True
    Me.Excavated.Value = False
    Me.LevelType.Enabled = False
    Me.DepositType.Enabled = False
    Me.cmdOpenSampleForm.Enabled = True
    Me.cmdOpenSTLevelsForm.Enabled = False
    Me.cmdOpenBoundryForm.Enabled = True
    Me.cmdOpenFeatureForm.Enabled = True
    Me.cmdOpenElevationForm.Enabled = False
    Me.cmdOpenSediment.Enabled = True
    Me.cmdOpenInclusionForm.Enabled = False
    Me.cmdOpenStratigraphyForm.Enabled = False
    Me.STGeoEasting.Enabled = False
    Me.STGeoNorthing.Enabled = False
    Me.STPEasting.Enabled = False
    Me.STPNorthing.Enabled = False
    Me.STSurfaceElev.Enabled = False
    Me.UnitSize.Enabled = True
Else: Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = False
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = False

```

```

Me.SurfaceCollectID.Enabled = False
Me.LevelType.Enabled = False
Me.DepositType.Enabled = False
Me.cmdOpenSampleForm.Enabled = False
Me.cmdOpenSTLevelsForm.Enabled = False
Me.cmdOpenBoundryForm.Enabled = False
Me.cmdOpenFeatureForm.Enabled = False
Me.cmdOpenElevationForm.Enabled = False
Me.cmdOpenSediment.Enabled = False
Me.cmdOpenInclusionForm.Enabled = False
Me.cmdOpenStratigraphyForm.Enabled = False
Me.STGeoEasting.Enabled = False
Me.STGeoNorthing.Enabled = False
Me.STPEasting.Enabled = False
Me.STPNorthing.Enabled = False
Me.STSurfaceElev.Enabled = False
Me.UnitSize.Enabled = True
End If

End Sub

Private Sub FeatureID_LostFocus()
Me.ContextID.Value = Me.FeatureID.Value & Me.LevelID.Value
End Sub

Private Sub Form_current()

If Me.ProjectKey.Value = "2" Then
    Me.cboProject.Value = "Blandwood"
ElseIf Me.ProjectKey.Value = "5" Then
    Me.cboProject.Value = "TCI"
ElseIf Me.ProjectKey.Value = "6" Then
    Me.cboProject.Value = "ARC"
End If

If Me!ContextType = "ST (Shovel Test)" Then
    Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = True
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = True
    Me.MetalDetectID.Enabled = False
    Me.SurfaceCollectID.Enabled = False
    Me.LevelType.Enabled = False
    Me.DepositType.Enabled = False
    Me.cmdOpenSampleForm.Enabled = True

```

```

Me.cmdOpenSTLevelsForm.Enabled = True
Me.cmdOpenBoundryForm.Enabled = False
Me.cmdOpenFeatureForm.Enabled = True
Me.cmdOpenElevationForm.Enabled = False
Me.cmdOpenSediment.Enabled = False
Me.cmdOpenInclusionForm.Enabled = False
Me.cmdOpenStratigraphyForm.Enabled = True
Me.STGeoEasting.Enabled = True
Me.STGeoNorthing.Enabled = True
Me.STPEasting.Enabled = True
Me.STPNorthing.Enabled = True
Me.STSurfaceElev.Enabled = True
Me.UnitSize.Enabled = True
Elseif Me!ContextType = "F (Feature)" Then
    Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = True
    Me.FeatureID.Enabled = True
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = False
    Me.SurfaceCollectID.Enabled = False
    Me.LevelType.Enabled = True
    Me.DepositType.Enabled = True
    Me.cmdOpenSampleForm.Enabled = True
    Me.cmdOpenSTLevelsForm.Enabled = False
    Me.cmdOpenBoundryForm.Enabled = False
    Me.cmdOpenFeatureForm.Enabled = False
    Me.cmdOpenElevationForm.Enabled = True
    Me.cmdOpenSediment.Enabled = True
    Me.cmdOpenInclusionForm.Enabled = True
    Me.cmdOpenStratigraphyForm.Enabled = True
    Me.STGeoEasting.Enabled = False
    Me.STGeoNorthing.Enabled = False
    Me.STPEasting.Enabled = False
    Me.STPNorthing.Enabled = False
    Me.STSurfaceElev.Enabled = False
    Me.UnitSize.Enabled = False
Elseif Me!ContextType = "U (Unit/Quad)" Then
    Me.QuadratID.Enabled = True
    Me.LevelID.Enabled = True
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = False
    Me.SurfaceCollectID.Enabled = False
    Me.LevelType.Enabled = True
    Me.DepositType.Enabled = True

```

```

Me.cmdOpenSampleForm.Enabled = True
Me.cmdOpenSTLevelsForm.Enabled = False
Me.cmdOpenBoundryForm.Enabled = True
Me.cmdOpenFeatureForm.Enabled = True
Me.cmdOpenElevationForm.Enabled = True
Me.cmdOpenSediment.Enabled = True
Me.cmdOpenInclusionForm.Enabled = True
Me.cmdOpenStratigraphyForm.Enabled = True
Me.STGeoEasting.Enabled = False
Me.STGeoNorthing.Enabled = False
Me.STPEasting.Enabled = False
Me.STPNorthing.Enabled = False
Me.STSurfaceElev.Enabled = False
Me.UnitSize.Enabled = True
Elseif Me!ContextType = "MD (Metal Detector Hit)" Then
    Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = False
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = True
    Me.SurfaceCollectID.Enabled = False
    Me.LevelType.Enabled = False
    Me.DepositType.Enabled = True
    Me.UnitSize.Enabled = False
    Me.cmdOpenSampleForm.Enabled = True
    Me.cmdOpenSTLevelsForm.Enabled = False
    Me.cmdOpenBoundryForm.Enabled = False
    Me.cmdOpenFeatureForm.Enabled = False
    Me.cmdOpenElevationForm.Enabled = True
    Me.cmdOpenSediment.Enabled = False
    Me.cmdOpenInclusionForm.Enabled = False
    Me.cmdOpenStratigraphyForm.Enabled = False
    Me.STGeoEasting.Enabled = False
    Me.STGeoNorthing.Enabled = False
    Me.STPEasting.Enabled = False
    Me.STPNorthing.Enabled = False
    Me.STSurfaceElev.Enabled = False
    Me.UnitSize.Enabled = False
Elseif Me!ContextType = "SC (Surface Collection)" Then
    Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = False
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = False
    Me.SurfaceCollectID.Enabled = True

```

```

Me.Excavated.Value = False
Me.LevelType.Enabled = False
Me.DepositType.Enabled = False
Me.cmdOpenSampleForm.Enabled = True
Me.cmdOpenSTLevelsForm.Enabled = False
Me.cmdOpenBoundryForm.Enabled = True
Me.cmdOpenFeatureForm.Enabled = True
Me.cmdOpenElevationForm.Enabled = False
Me.cmdOpenSediment.Enabled = True
Me.cmdOpenInclusionForm.Enabled = False
Me.cmdOpenStratigraphyForm.Enabled = False
Me.STGeoEasting.Enabled = False
Me.STGeoNorthing.Enabled = False
Me.STPEasting.Enabled = False
Me.STPNorthing.Enabled = False
Me.STSurfaceElev.Enabled = False
Me.UnitSize.Enabled = True
Else: Me.QuadratID.Enabled = False
    Me.LevelID.Enabled = False
    Me.FeatureID.Enabled = False
    Me.ShovelTestID.Enabled = False
    Me.MetalDetectID.Enabled = False
    Me.SurfaceCollectID.Enabled = False
    Me.LevelType.Enabled = False
    Me.DepositType.Enabled = False
    Me.cmdOpenSampleForm.Enabled = False
    Me.cmdOpenSTLevelsForm.Enabled = False
    Me.cmdOpenBoundryForm.Enabled = False
    Me.cmdOpenFeatureForm.Enabled = False
    Me.cmdOpenElevationForm.Enabled = False
    Me.cmdOpenSediment.Enabled = False
    Me.cmdOpenInclusionForm.Enabled = False
    Me.cmdOpenStratigraphyForm.Enabled = False
    Me.STGeoEasting.Enabled = False
    Me.STGeoNorthing.Enabled = False
    Me.STPEasting.Enabled = False
    Me.STPNorthing.Enabled = False
    Me.STSurfaceElev.Enabled = False
    Me.UnitSize.Enabled = True
End If

End Sub

Private Sub Form_Dirty(Cancel As Integer)

```

```

If Me.AddedBy.Value <> "" Then
    Me.ChangedBy = CurrentUser
    Else: Me.AddedBy = CurrentUser
End If

```

```

If Me.DateAdded.Value <> "" Then
    Me.DateChanged = Now
    Else: Me.DateAdded = Now
End If

```

```

End Sub

```

```

Private Sub LevelID_LostFocus()
Me.ContextID.Locked = False
Me.ContextID.Value = Me.ContextID.Value & Me.LevelID.Value
Me.ContextID.Locked = True
End Sub

```

```

Private Sub MetalDetectID_LostFocus()
Me.ContextID.Locked = False
Me.ContextID.Value = Me.MetalDetectID.Value
Me.ContextID.Locked = True
End Sub

```

```

Private Sub QuadratID_LostFocus()
Me.ContextID.Locked = False
Me.ContextID.Value = Me.QuadratID.Value & Me.LevelID.Value
Me.ContextID.Locked = True
End Sub

```

```

Private Sub ShovelTestID_LostFocus()
Me.ContextID.Locked = False
Me.ContextID.Value = Me.ShovelTestID.Value & Me.LevelID.Value
Me.ContextID.Locked = True
End Sub

```

```

Private Sub SurfaceCollectID_LostFocus()
Me.ContextID.Locked = False
Me.ContextID.Value = Me.SurfaceCollectID.Value
Me.ContextID.Locked = True
End Sub

```

```

Private Sub cmdOpenfrmContextObjects_Click()
On Error GoTo Err_cmdOpenfrmContextObjects_Click

```

```

DoCmd.RunCommand acCmdSaveRecord

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmContextObjects"

stLinkCriteria = "[ContextKey]=" & Me![ContextKey]
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenfrmContextObjects_Click:
Exit Sub

Err_cmdOpenfrmContextObjects_Click:
MsgBox Err.Description
Resume Exit_cmdOpenfrmContextObjects_Click

End Sub
Private Sub cmdLastRecord_Click()
On Error GoTo Err_cmdLastRecord_Click

DoCmd.GoToRecord , , acLast

Exit_cmdLastRecord_Click:
Exit Sub

Err_cmdLastRecord_Click:
MsgBox Err.Description
Resume Exit_cmdLastRecord_Click

End Sub
Private Sub cmdFirstRecord_Click()
On Error GoTo Err_cmdFirstRecord_Click

DoCmd.GoToRecord , , acFirst

Exit_cmdFirstRecord_Click:
Exit Sub

Err_cmdFirstRecord_Click:
MsgBox Err.Description
Resume Exit_cmdFirstRecord_Click

```

```

End Sub
Private Sub cmdNextRecord_Click()
On Error GoTo Err_cmdNextRecord_Click

    DoCmd.GoToRecord , , acNext

Exit_cmdNextRecord_Click:
Exit Sub

Err_cmdNextRecord_Click:
MsgBox Err.Description
Resume Exit_cmdNextRecord_Click

End Sub
Private Sub cmdPrevRecord_Click()
On Error GoTo Err_cmdPrevRecord_Click

    DoCmd.GoToRecord , , acPrevious

Exit_cmdPrevRecord_Click:
Exit Sub

Err_cmdPrevRecord_Click:
MsgBox Err.Description
Resume Exit_cmdPrevRecord_Click

End Sub
Private Sub cmdOpenBugForm_Click()
On Error GoTo Err_cmdOpenBugForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmBugNotes"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenBugForm_Click:
Exit Sub

Err_cmdOpenBugForm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenBugForm_Click

```



```

End Sub
Private Sub cmdOpenEditRefForm_Click()
On Error GoTo Err_cmdOpenEditRefForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmEditReferenceTables"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenEditRefForm_Click:
Exit Sub

Err_cmdOpenEditRefForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenEditRefForm_Click

End Sub

Private Sub cmdAddMenuItemForm_Click()
On Error GoTo Err_cmdAddMenuItemForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmEditReferenceTables"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdAddMenuItemForm_Click:
Exit Sub

Err_cmdAddMenuItemForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdAddMenuItemForm_Click

End Sub

```

Context Sample Subform Coding

Option Compare Database

```

Private Sub cmdCloseSampleForm_Click()
On Error GoTo Err_cmdCloseSampleForm_Click

```

```

    If Me.Dirty Then Me.Dirty = False
    DoCmd.Close

Exit_cmdCloseSampleForm_Click:
    Exit Sub

Err_cmdCloseSampleForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdCloseSampleForm_Click

End Sub

Private Sub ContextID_BeforeUpdate(Cancel As Integer)
    Me.ContextID.Value = tblContext!ContextID.Value
End Sub

Private Sub Form_Dirty(Cancel As Integer)

    Me.ContextKey = Forms!frmContext!ContextKey
    Me.ContextID = Forms!frmContext!ContextID

End Sub
Private Sub cmdNewSample_Click()
    On Error GoTo Err_cmdNewSample_Click

    DoCmd.GoToRecord , , acNewRec

Exit_cmdNewSample_Click:
    Exit Sub

Err_cmdNewSample_Click:
    MsgBox Err.Description
    Resume Exit_cmdNewSample_Click

End Sub
Private Sub cmdLastRecord_Click()
    On Error GoTo Err_cmdLastRecord_Click

    DoCmd.GoToRecord , , acLast

Exit_cmdLastRecord_Click:

```

```

Exit Sub

Err_cmdLastRecord_Click:
    MsgBox Err.Description
    Resume Exit_cmdLastRecord_Click

End Sub
Private Sub cmdFirstRecord_Click()
On Error GoTo Err_cmdFirstRecord_Click

    DoCmd.GoToRecord , , acFirst

Exit_cmdFirstRecord_Click:
    Exit Sub

Err_cmdFirstRecord_Click:
    MsgBox Err.Description
    Resume Exit_cmdFirstRecord_Click

End Sub
Private Sub cmdNextRecord_Click()
On Error GoTo Err_cmdNextRecord_Click

    DoCmd.GoToRecord , , acNext

Exit_cmdNextRecord_Click:
    Exit Sub

Err_cmdNextRecord_Click:
    MsgBox Err.Description
    Resume Exit_cmdNextRecord_Click

End Sub
Private Sub cmdPrevRecord_Click()
On Error GoTo Err_cmdPrevRecord_Click

    DoCmd.GoToRecord , , acPrevious

Exit_cmdPrevRecord_Click:
    Exit Sub

Err_cmdPrevRecord_Click:

```

```

    MsgBox Err.Description
    Resume Exit_cmdPrevRecord_Click

End Sub
Private Sub cmdOpenBugForm_Click()
On Error GoTo Err_cmdOpenBugForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmBugNotes"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenBugForm_Click:
    Exit Sub

Err_cmdOpenBugForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenBugForm_Click

End Sub
Private Sub cmdOpenEditRefForm_Click()
On Error GoTo Err_cmdOpenEditRefForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmEditReferenceTables"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenEditRefForm_Click:
    Exit Sub

Err_cmdOpenEditRefForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenEditRefForm_Click

End Sub

```

Artifact Form Coding

```

Option Compare Database
Option Explicit

```

```

Private Sub cboCategory_AfterUpdate()

    Me.AddedBy.Value = CurrentUser
    Me.DateAdded.Value = Now
    Me.Refresh

End Sub

Private Sub cboCategory_BeforeUpdate(Cancel As Integer)

    'Bone category form changes.
    If cboCategory.Text = "Bone" Then

        cboR1.Visible = True
        cboR2.Visible = True
        cboR3.Visible = True
        cboR4.Visible = True
        cboR5.Visible = True
        cboR6.Visible = True
        cboR7.Visible = True
        cboR8.Visible = True
        cboR9.Visible = True
        cboR10.Visible = True
        cboR11.Visible = True
        cboR12.Visible = True
        cboR13.Visible = True
        cboR14.Visible = True
        cboR15.Visible = True
        cboR16.Visible = True
        cboR17.Visible = True
        cboR18.Visible = True
        cboR19.Visible = True
        cboR20.Visible = True
        cboR21.Visible = False
        cboR22.Visible = False
        cboR23.Visible = False
        cboR24.Visible = False

        lblR1.Visible = True
        lblR2.Visible = True
        lblR3.Visible = True
        lblR4.Visible = True
        lblR5.Visible = True
        lblR6.Visible = True

```

lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = True
lblR10.Visible = True
lblR11.Visible = True
lblR12.Visible = True
lblR13.Visible = True
lblR14.Visible = True
lblR15.Visible = True
lblR16.Visible = True
lblR17.Visible = True
lblR18.Visible = True
lblR19.Visible = True
lblR20.Visible = True
lblR21.Visible = False
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material] From [refBone] Where [Material] Is Not Null"

lblR1.Caption = "Material:"

cboR2.RowSource = "Select Distinct [Completeness] From [refBone] Where [Completeness] Is Not Null"

lblR2.Caption = "Completeness:"

cboR3.RowSource = "Select Distinct [BoneSize] From [refBone] Where [BoneSize] Is Not Null"

lblR3.Caption = "Bone Size:"

cboR4.RowSource = "Select Distinct [English] From [refBoneTaxonomy] Where [English] Is Not Null"

lblR4.Caption = "Taxonomy (English):"

cboR5.RowSource = "Select Distinct [BoneElement] From [refBoneElement] Where [BoneElement] Is Not Null"

lblR5.Caption = "Bone Element:"

cboR6.RowSource = "Select Distinct [LocationID] From [refBone]"

lblR6.Caption = "Location ID:"

cboR7.RowSource = "Select Distinct [DescriptorID] From [refBone] Where [DescriptorID] Is Not Null"

lblR7.Caption = "Descriptor ID:"

```

cboR8.RowSource = "Select Distinct [FusionID] From [refBone] Where [FusionID] Is Not
Null"
lblR8.Caption = "Fusion ID:"

cboR9.RowSource = "Select Distinct [Sex] From [refBone] Where [Sex] Is Not Null"
lblR9.Caption = "Sex:"

cboR10.RowSource = "Select Distinct [DiseaseTrauma] From [refBone] Where
[DiseaseTrauma] Is Not Null"
lblR10.Caption = "Disease/Trauma:"

cboR11.RowSource = "Select Distinct [ToothType] From [refBone] Where [ToothType] Is
Not Null"
lblR11.Caption = "Tooth Type:"

cboR12.RowSource = "Select Distinct [ChewType] From [refBone] Where [ChewType] Is Not
Null"
lblR12.Caption = "Chew Type:"

cboR13.RowSource = "Select Distinct [ChewLocation] From [refBone] Where
[ChewLocation] Is Not Null"
lblR13.Caption = "Chew Location:"

cboR14.RowSource = "Select Distinct [ButcherMethod] From [refBone] Where
[ButcherMethod] Is Not Null"
lblR14.Caption = "Butcher Method:"

cboR15.RowSource = "Select Distinct [ButcherLocation] From [refBone] Where
[ButcherLocation] Is Not Null"
lblR15.Caption = "Butcher Location:"

cboR16.RowSource = "Select Distinct [BoneMarkType] From [refBone] Where
[BoneMarkType] Is Not Null"
lblR16.Caption = "Mark Type:"

cboR17.RowSource = "Select Distinct [BoneMarkLocation] From [refBone] Where
[BoneMarkLocation] Is Not Null"
lblR17.Caption = "Mark Location:"

cboR18.RowSource = "Select Distinct [BoneMarkDirection] From [refBone] Where
[BoneMarkDirection] Is Not Null"
lblR18.Caption = "Mark Direction:"

cboR19.RowSource = "Select Distinct [NumCutMarks] From [refBone]"

```

lblR19.Caption = "Number of Cut Marks:"

cboR20.RowSource = "Select Distinct [Reliability] From [refBone]"

lblR20.Caption = "Reliability:"

cmdOne.Visible = False

cmdTwo.Visible = False

cmdThree.Visible = False

cmdFour.Visible = False

End If

'Bead category form changes.

If cboCategory.Text = "Bead" Then

cboR1.Visible = True

cboR2.Visible = True

cboR3.Visible = True

cboR4.Visible = True

cboR5.Visible = True

cboR6.Visible = True

cboR7.Visible = True

cboR8.Visible = True

cboR9.Visible = True

cboR10.Visible = True

cboR11.Visible = True

cboR12.Visible = True

cboR13.Visible = True

cboR14.Visible = False

cboR15.Visible = False

cboR16.Visible = False

cboR17.Visible = False

cboR18.Visible = False

cboR19.Visible = False

cboR20.Visible = False

cboR21.Visible = False

cboR22.Visible = False

cboR23.Visible = False

cboR24.Visible = False

lblR1.Visible = True

lblR2.Visible = True

lblR3.Visible = True

lblR4.Visible = True

lblR5.Visible = True

lblR6.Visible = True


```

lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = True
lblR10.Visible = True
lblR11.Visible = True
lblR12.Visible = True
lblR13.Visible = True
lblR14.Visible = False
lblR15.Visible = False
lblR16.Visible = False
lblR17.Visible = False
lblR18.Visible = False
lblR19.Visible = False
lblR20.Visible = False
lblR21.Visible = False
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

```

```

cboR1.RowSource = "Select Distinct [Material] From [refBead] Where [Material] Is Not Null"

```

```

lblR1.Caption = "Material:"

```

```

cboR2.RowSource = "Select Distinct [Completeness] From [refBead] Where [Completeness] Is Not Null"

```

```

lblR2.Caption = "Completeness:"

```

```

cboR3.RowSource = "Select Distinct [Manufacture] From [refBead] Where [Manufacture] Is Not Null"

```

```

lblR3.Caption = "Manufacture:"

```

```

cboR4.RowSource = "Select Distinct [BeadStructure] From [refBead] Where [BeadStructure] Is Not Null"

```

```

lblR4.Caption = "Bead Structure:"

```

```

cboR5.RowSource = "Select Distinct [BeadForm] From [refBead] Where [BeadForm] Is Not Null"

```

```

lblR5.Caption = "Bead Form:"

```

```

cboR6.RowSource = "Select Distinct [BeadShape] From [refBead] Where [BeadShape] Is Not Null"

```

```

lblR6.Caption = "Bead Shape:"

```

```

cboR6.RowSource = "Select Distinct [SizeofPerforation1] From [refBead]"

```

```

lblR7.Caption = "Perforation Size 1:"

```

```

cboR6.RowSource = "Select Distinct [SizeofPerforationII] From [refBead]"
lblR8.Caption = "Perforation Size 2:"

cboR9.RowSource = "Select Distinct [EndTreatment] From [refBead] Where [EndTreatment]
Is Not Null"
lblR9.Caption = "End Treatment:"

cboR10.RowSource = "Select Distinct [HeatTreated] From [refBead] Where [HeatTreated] Is
Not Null"
lblR10.Caption = "Heat Treated:"

cboR11.RowSource = "Select Distinct [MunsellColorCode] From [refMunsellRGB] Where
[MunsellColorCode] Is Not Null"
lblR11.Caption = "Bead Color:"

cboR12.RowSource = "Select Distinct [Diaphaneity] From [refBead] Where [Diaphaneity] Is
Not Null"
lblR12.Caption = "Diaphaneity:"

cboR13.RowSource = "Select Distinct [Patination] From [refBead] Where [Patination] Is Not
Null"
lblR13.Caption = "Patination:"

cmdOne.Visible = False
cmdTwo.Visible = False
cmdThree.Visible = False
cmdFour.Visible = False
End If

' Ceramic category form changes.
If Me!cboCategory = "Ceramic" Then

    Me!cboR1.Visible = True
    Me!cboR2.Visible = True
    Me!cboR3.Visible = True
    Me!cboR4.Visible = True
    Me!cboR5.Visible = True
    Me!cboR6.Visible = True
    Me!cboR7.Visible = True
    Me!cboR8.Visible = True
    Me!cboR9.Visible = True
    Me!cboR10.Visible = True
    Me!cboR11.Visible = True
    Me!cboR12.Visible = True

```

Me!cboR13.Visible = True
Me!cboR14.Visible = True
Me!cboR15.Visible = False
Me!cboR16.Visible = False
Me!cboR17.Visible = False
Me!cboR18.Visible = False
Me!cboR19.Visible = False
Me!cboR20.Visible = False
Me!cboR21.Visible = False
Me!cboR22.Visible = False
Me!cboR23.Visible = False
Me!cboR24.Visible = False

Me!lblr1.Visible = True
Me!lblr2.Visible = True
Me!lblr3.Visible = True
Me!lblr4.Visible = True
Me!lblr5.Visible = True
Me!lblr6.Visible = True
Me!lblr7.Visible = True
Me!lblr8.Visible = True
Me!lblr9.Visible = True
Me!lblr10.Visible = True
Me!lblr11.Visible = True
Me!lblr12.Visible = True
Me!lblr13.Visible = True
Me!lblr14.Visible = True
Me!lblr15.Visible = False
Me!lblr16.Visible = False
Me!lblr17.Visible = False
Me!lblr18.Visible = False
Me!lblr19.Visible = False
Me!lblr20.Visible = False
Me!lblr21.Visible = False
Me!lblr22.Visible = False
Me!lblr23.Visible = False
Me!lblr24.Visible = False

Me!cboR1.RowSource = "Select Distinct [Material] From [refCeramics] Where [Material] Is Not Null"

Me!lblr1.Caption = "Material:"

Me!cboR6.RowSource = "Select Distinct [Completeness] From [refCeramics] Where [Completeness] Is Not Null"

Me!lblr6.Caption = "Completeness:"

```

Me!cboR9.RowSource = "Select Distinct [Manufacture] From [refCeramics] Where
[Manufacture] Is Not Null"
Me!lblr9.Caption = "Manufacture:"

Me!cboR2.RowSource = "Select Distinct [Wares] From [refCeramics] Where [Wares] Is Not
Null"
Me!lblr2.Caption = "Ware:"

Me!cboR5.RowSource = "Select Distinct [VesselCategory] From [refCeramics] Where
[VesselCategory] Is Not Null"
Me!lblr5.Caption = "Vessel Category:"

Me!cboR7.RowSource = "Select Distinct [Form] From [refCeramics] Where [Form] Is Not
Null"
Me!lblr7.Caption = "Form:"

Me!cboR8.RowSource = "Select Distinct [MendedForm] From [refCeramics] Where
[MendedForm] Is Not Null"
Me!lblr8.Caption = "Mended Form:"

Me!cboR3.RowSource = "Select Distinct [ExteriorSurface] From [refCeramics] Where
[ExteriorSurface] Is Not Null"
Me!lblr3.Caption = "Exterior Surface:"

Me!cboR4.RowSource = "Select Distinct [InteriorSurface] From [refCeramics] Where
[InteriorSurface] Is Not Null"
Me!lblr4.Caption = "Interior Surface:"

Me!cboR10.RowSource = "Select Distinct [OxidizedReduced] From [refCeramics] Where
[OxidizedReduced] Is Not Null"
Me!lblr10.Caption = "Oxidized/Reduced:"

Me!cboR11.RowSource = "Select Distinct [PasteInclusions] From [refCeramics] Where
[PasteInclusions] Is Not Null"
Me!lblr11.Caption = "Paste Inclusions:"

Me!cboR12.RowSource = "Select Distinct [Burnt] From [refCeramics] Where [Burnt] Is Not
Null"
Me!lblr12.Caption = "Burn Description:"

Me!cboR13.RowSource = "Select Distinct [MunsellColorCode] From [refMunsellRGB]
Where [MunsellColorCode] Is Not Null"
Me!lblr13.Caption = "Paste/Body Color:"

```

```

Me!cboR14.RowSource = "Select Distinct [MeanCeramicDateTypes] From [tblMCDTypes]
Where [MeanCeramicDateTypes] Is Not Null"
Me!lblR14.Caption = "MCD Type:"

```

```

Dim ID As Integer
ID = Me!ID.Value
Me!cmdOne.Visible = True
Me!cmdOne.Caption = "Ceramic Decoration"
Me!cmdTwo.Visible = True
Me!cmdTwo.Caption = "Paste Inclusions"
Me!cmdThree.Visible = True
Me!cmdThree.Caption = "Wear Marks"
Me!cmdFour.Visible = True
Me!cmdFour.Caption = "Colonoware Form"
End If

```

```

'Glass catrgory form changes
If cboCategory.Text = "Glass" Then

```

```

cboR1.Visible = True
cboR2.Visible = True
cboR3.Visible = True
cboR4.Visible = True
cboR5.Visible = True
cboR6.Visible = True
cboR7.Visible = True
cboR8.Visible = True
cboR9.Visible = True
cboR10.Visible = True
cboR11.Visible = True
cboR12.Visible = True
cboR13.Visible = True
cboR14.Visible = True
cboR15.Visible = True
cboR16.Visible = True
cboR17.Visible = True
cboR18.Visible = True
cboR19.Visible = True
cboR20.Visible = True
cboR21.Visible = True
cboR22.Visible = True
cboR23.Visible = True
cboR24.Visible = False

```

```

lblR1.Visible = True

```

lblR2.Visible = True
lblR3.Visible = True
lblR4.Visible = True
lblR5.Visible = True
lblR6.Visible = True
lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = True
lblR10.Visible = True
lblR11.Visible = True
lblR12.Visible = True
lblR13.Visible = True
lblR14.Visible = True
lblR15.Visible = True
lblR16.Visible = True
lblR17.Visible = True
lblR18.Visible = True
lblR19.Visible = True
lblR20.Visible = True
lblR21.Visible = True
lblR22.Visible = True
lblR23.Visible = True
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material] From [refGlass] Where [Material] Is Not Null"

lblR1.Caption = "Material:"

cboR2.RowSource = "Select Distinct [Completeness] From [refGlass] Where [Completeness] Is Not Null"

lblR2.Caption = "Completeness:"

cboR3.RowSource = "Select Distinct [Color] From [refGlass] Where [Color] Is Not Null"

lblR3.Caption = "Color:"

cboR4.RowSource = "Select Distinct [VesselForm] From [refGlass] Where [VesselForm] Is Not Null"

lblR4.Caption = "Vessel Form:"

cboR5.RowSource = "Select Distinct [Form] From [refGlass] Where [Form] Is Not Null"

lblR5.Caption = "Form:"

cboR6.RowSource = "Select Distinct [Manufacture] From [refGlass] Where [Manufacture] Is Not Null"

lblR6.Caption = "Manufacture:"

cboR7.RowSource = "Select Distinct [MoldType] From [refGlass] Where [MoldType] Is Not Null"
 lblR7.Caption = "Mended Form:"

cboR8.RowSource = "Select Distinct [DecorativeTechnique] From [refGlass] Where [DecorativeTechnique] Is Not Null"
 lblR8.Caption = "Decorative Technique:"

cboR9.RowSource = "Select Distinct [PontilMark] From [refGlass] Where [PontilMark] Is Not Null"
 lblR9.Caption = "Pontil Mark Type:"

cboR10.RowSource = "Select Distinct [StemwareBodyShape] From [refGlass] Where [StemwareBodyShape] Is Not Null"
 lblR10.Caption = "Stemware Body Shape:"

cboR11.RowSource = "Select Distinct [StemwareFootShape] From [refGlass] Where [StemwareFootShape] Is Not Null"
 lblR11.Caption = "Stemware Foot Shape:"

cboR12.RowSource = "Select Distinct [StemShape] From [refGlass] Where [StemShape] Is Not Null"
 lblR12.Caption = "Stem Shape:"

cboR13.RowSource = "Select Distinct [StylisticElement] From [refGlass] Where [StylisticElement] Is Not Null"
 lblR13.Caption = "Stylistic Element:"

cboR14.RowSource = "Select Distinct [GlassMarks] From [refGlass]"
 lblR14.Caption = "Glass Marks:"

cboR15.RowSource = "Select Distinct [GlassMarkLocation] From [refGlass] Where [GlassMarkLocation] Is Not Null"
 lblR15.Caption = "Mark Location:"

cboR16.RowSource = "Select Distinct [StemLength] From [refGlass]"
 lblR16.Caption = "Stem Length:"

cboR17.RowSource = "Select Distinct [SherdSize] From [refGlass]"
 lblR17.Caption = "Sherd Size:"

cboR18.RowSource = "Select Distinct [SherdThickness] From [refGlass]"
 lblR18.Caption = "Sherd Thickness:"

```
cboR19.RowSource = "Select Distinct [Rim Length] From [refGlass]"  
lblR19.Caption = "Rim Length:"
```

```
cboR20.RowSource = "Select Distinct [RimDiam] From [refGlass]"  
lblR20.Caption = "Rim Diameter:"
```

```
cboR21.RowSource = "Select Distinct [MendedRimDiam] From [refGlass]"  
lblR21.Caption = "Mended Rim Diameter:"
```

```
cboR22.RowSource = "Select Distinct [ACDiam] From [refGlass]"  
lblR22.Caption = "AC Diameter:"
```

```
cboR23.RowSource = "Select Distinct [TotalContainerHeight] From [refGlass] Where  
[StemShape] Is Not Null"  
lblR23.Caption = "Total Container Height:"
```

```
cmdOne.Visible = True  
cmdOne.Caption = "Glass Decoration"  
cmdTwo.Visible = True  
cmdTwo.Caption = "Bottle Info Form"  
cmdThree.Visible = False  
cmdFour.Visible = False
```

End If

```
'Masonry category form changes.  
If cboCategory.Text = "Masonry" Then
```

```
cboR1.Visible = True  
cboR2.Visible = True  
cboR3.Visible = True  
cboR4.Visible = True  
cboR5.Visible = True  
cboR6.Visible = True  
cboR7.Visible = True  
cboR8.Visible = True  
cboR9.Visible = True  
cboR10.Visible = True  
cboR11.Visible = True  
cboR12.Visible = False  
cboR13.Visible = False  
cboR14.Visible = False  
cboR15.Visible = False  
cboR16.Visible = False  
cboR17.Visible = False
```


cboR18.Visible = False
cboR19.Visible = False
cboR20.Visible = False
cboR21.Visible = False
cboR22.Visible = False
cboR23.Visible = False
cboR24.Visible = False

lblR1.Visible = True
lblR2.Visible = True
lblR3.Visible = True
lblR4.Visible = True
lblR5.Visible = True
lblR6.Visible = True
lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = True
lblR10.Visible = True
lblR11.Visible = True
lblR12.Visible = False
lblR13.Visible = False
lblR14.Visible = False
lblR15.Visible = False
lblR16.Visible = False
lblR17.Visible = False
lblR18.Visible = False
lblR19.Visible = False
lblR20.Visible = False
lblR21.Visible = False
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material] From [refMasonry] Where [Material] Is Not Null"

lblR1.Caption = "Material:"

cboR2.RowSource = "Select Distinct [Completeness] From [refMasonry] Where [Completeness] Is Not Null"

lblR2.Caption = "Completeness:"

cboR3.RowSource = "Select Distinct [MasonryClass] From [refMasonry] Where [MasonryClass] Is Not Null"

lblR3.Caption = "Class:"

```

    cboR4.RowSource = "Select Distinct [OrigLocation] From [refMasonry] Where
[OrigLocation] Is Not Null"
    lblR4.Caption = "Original Location:"

    cboR5.RowSource = "Select Distinct [Manufacture] From [refMasonry] Where
[Manufacture] Is Not Null"
    lblR5.Caption = "Manufacture:"

    cboR6.RowSource = "Select Distinct [BodyColor] From [refMasonry] Where [BodyColor] Is
Not Null"
    lblR6.Caption = "Color:"

    cboR7.RowSource = "Select Distinct [NumHoles] From [refMasonry] Where [NumHoles] Is
Not Null"
    lblR7.Caption = "Number of Holes:"

    cboR8.RowSource = "Select Distinct [Inclusion1] From [refMasonry] Where [Inclusion1] Is
Not Null"
    lblR8.Caption = "Inclusion 1:"

    cboR9.RowSource = "Select Distinct [Inclusion2] From [refMasonry] Where [Inclusion2] Is
Not Null"
    lblR9.Caption = "Inclusion 2:"

    cboR10.RowSource = "Select Distinct [Decoration] From [refMasonry] Where [Decoration]
Is Not Null"
    lblR10.Caption = "Decoration:"

    cboR11.RowSource = "Select Distinct [NumWhole] From [refMasonry] Where [NumWhole]
Is Not Null"
    lblR11.Caption = "Number Whole:"

    cmdOne.Visible = True
    cmdOne.Caption = "Masonry Decoration"
    cmdTwo.Visible = False
    cmdThree.Visible = False
    cmdFour.Visible = False

End If

'Metal category form changes.
If cboCategory.Text = "Metal" Then

    cboR1.Visible = True
    cboR2.Visible = True

```

cboR3.Visible = True
cboR4.Visible = True
cboR5.Visible = True
cboR6.Visible = True
cboR7.Visible = True
cboR8.Visible = True
cboR9.Visible = True
cboR10.Visible = True
cboR11.Visible = True
cboR12.Visible = True
cboR13.Visible = True
cboR14.Visible = True
cboR15.Visible = True
cboR16.Visible = True
cboR17.Visible = True
cboR18.Visible = False
cboR19.Visible = False
cboR20.Visible = False
cboR21.Visible = False
cboR22.Visible = False
cboR23.Visible = False
cboR24.Visible = False

lblR1.Visible = True
lblR2.Visible = True
lblR3.Visible = True
lblR4.Visible = True
lblR5.Visible = True
lblR6.Visible = True
lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = True
lblR10.Visible = True
lblR11.Visible = True
lblR12.Visible = True
lblR13.Visible = True
lblR14.Visible = True
lblR15.Visible = True
lblR16.Visible = True
lblR17.Visible = True
lblR18.Visible = False
lblR19.Visible = False
lblR20.Visible = False
lblR21.Visible = False
lblR22.Visible = False

lblR23.Visible = False

lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material] From [refMetal] Where [Material] Is Not Null"

lblR1.Caption = "Material:"

cboR2.RowSource = "Select Distinct [Completeness] From [refMetal] Where [Completeness] Is Not Null"

lblR2.Caption = "Completeness:"

cboR3.RowSource = "Select Distinct [Form] From [refMetal] Where [Form] Is Not Null"

lblR3.Caption = "Form:"

cboR4.RowSource = "Select Distinct [Part] From [refMetal] Where [Part] Is Not Null"

lblR4.Caption = "Part:"

cboR5.RowSource = "Select Distinct [Manufacture] From [refMetal] Where [Manufacture] Is Not Null"

lblR5.Caption = "Manufacture:"

cboR6.RowSource = "Select Distinct [HeadType] From [refMetal] Where [HeadType] Is Not Null"

lblR6.Caption = "Head Type:"

cboR7.RowSource = "Select Distinct [FastenerType] From [refMetal] Where [FastenerType] Is Not Null"

lblR7.Caption = "Fastener Type:"

cboR8.RowSource = "Select Distinct [PennyWeight] From [refMetal] Where [PennyWeight] Is Not Null"

lblR8.Caption = "Penny Weight:"

cboR9.RowSource = "Select Distinct [MunsellColorCode] From [refMunsellRGB] Where [MunsellColorCode] Is Not Null"

lblR9.Caption = "Body Color:"

cboR10.RowSource = "Select Distinct [MunsellColorCode] From [refMunsellRGB] Where [MunsellColorCode] Is Not Null"

lblR10.Caption = "Decor Color:"

cboR11.RowSource = "Select Distinct [DecorTechnique] From [refMetal] "

lblR11.Caption = "Decor Technique:"

cboR12.RowSource = "Select Distinct [DecorDescription] From [refMetal] "

```

lblR12.Caption = "Decor Description:"

cboR13.RowSource = "Select Distinct [CoinType] From [refMetal] Where [CoinType] Is Not
Null"
lblR13.Caption = "Coin Type:"

cboR14.RowSource = "Select Distinct [CoinDate] From [refMetal] "
lblR14.Caption = "Coin Date:"

cboR15.RowSource = "Select Distinct [Text] From [refMetal] "
lblR15.Caption = "Applied Text:"

cboR16.RowSource = "Select Distinct [Manufacturer] From [refMetal] "
lblR16.Caption = "Manufacturer:"

cboR17.RowSource = "Select Distinct [ModelInfo] From [refMetal]"
lblR17.Caption = "Model Info:"

cmdOne.Visible = True
cmdOne.Caption = "Metal Measure"
cmdTwo.Visible = False
cmdThree.Visible = False
cmdFour.Visible = False

End If

'Tobacco category form changes.
If cboCategory.Text = "Tobacco" Then

cboR1.Visible = True
cboR2.Visible = True
cboR3.Visible = True
cboR4.Visible = True
cboR5.Visible = True
cboR6.Visible = True
cboR7.Visible = True
cboR8.Visible = True
cboR9.Visible = True
cboR10.Visible = True
cboR11.Visible = True
cboR12.Visible = True
cboR13.Visible = True
cboR14.Visible = True
cboR15.Visible = True
cboR16.Visible = True

```

cboR17.Visible = False
cboR18.Visible = False
cboR19.Visible = False
cboR20.Visible = False
cboR21.Visible = False
cboR22.Visible = False
cboR23.Visible = False
cboR24.Visible = False

lblR1.Visible = True
lblR2.Visible = True
lblR3.Visible = True
lblR4.Visible = True
lblR5.Visible = True
lblR6.Visible = True
lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = True
lblR10.Visible = True
lblR11.Visible = True
lblR12.Visible = True
lblR13.Visible = True
lblR14.Visible = True
lblR15.Visible = True
lblR16.Visible = True
lblR17.Visible = False
lblR18.Visible = False
lblR19.Visible = False
lblR20.Visible = False
lblR21.Visible = False
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material] From [refTobacco] Where [Material] Is Not Null"

lblR1.Caption = "Material:"

cboR2.RowSource = "Select Distinct [Completeness] From [refTobacco] Where [Completeness] Is Not Null"

lblR2.Caption = "Completeness:"

cboR3.RowSource = "Select Distinct [BowlForm] From [refTobacco] Where [BowlForm] Is Not Null"

lblR3.Caption = "Bowl Form:"

cboR4.RowSource = "Select Distinct [MouthpieceForm] From [refTobacco] Where
 [MouthpieceForm] Is Not Null"
 lblR4.Caption = "Mouthpiece Form:"

cboR5.RowSource = "Select Distinct [BowlBaseType] From [refTobacco] Where
 [BowlBaseType] Is Not Null"
 lblR5.Caption = "Bowl Base Type:"

cboR6.RowSource = "Select Distinct [StemLength] From [refTobacco] "
 lblR6.Caption = "Stem Length:"

cboR7.RowSource = "Select Distinct [ExteriorStemDiam] From [refTobacco] "
 lblR7.Caption = "Exterior Stem Diameter:"

cboR8.RowSource = "Select Distinct [BoreDiam] From [refTobacco] "
 lblR8.Caption = "Bore Diameter:"

cboR9.RowSource = "Select Distinct [64thBoreDiam] From [refTobacco] Where
 [64thBoreDiam] Is Not Null"
 lblR9.Caption = "64th Bore Diameter:"

cboR10.RowSource = "Select Distinct [CompleteBowlHeight] From [refTobacco] "
 lblR10.Caption = "Complete Bowl Height:"

cboR11.RowSource = "Select Distinct [BowlVolume] From [refTobacco] "
 lblR11.Caption = "Bowl Volume(cc):"

cboR12.RowSource = "Select Distinct [MaxBowlDiam] From [refTobacco] "
 lblR12.Caption = "Max Bowl Diameter:"

cboR13.RowSource = "Select Distinct [BowlRimDiam] From [refTobacco] "
 lblR13.Caption = "Bowl Rim Diameter:"

cboR14.RowSource = "Select Distinct [PasteInclusions] From [refTobacco] Where
 [PasteInclusions] Is Not Null"
 lblR14.Caption = "Paste Inclusions:"

cboR15.RowSource = "Select Distinct [ManufactureTechnique] From [refTobacco] Where
 [ManufactureTechnique] Is Not Null"
 lblR15.Caption = "Manufacture Technique:"

cboR16.RowSource = "Select Distinct [GlazeType] From [refTobacco] Where [GlazeType] Is
 Not Null"
 lblR16.Caption = "Glaze Type:"

```
cmdOne.Visible = True
cmdOne.Caption = "Tobacco Decor"
cmdTwo.Visible = True
cmdTwo.Caption = "Text Marks"
cmdThree.Visible = False
cmdFour.Visible = False
```

```
End If
```

```
'Utensil category form changes.
```

```
If cboCategory.Text = "Utensil" Then
```

```
cboR1.Visible = True
cboR2.Visible = True
cboR3.Visible = True
cboR4.Visible = True
cboR5.Visible = True
cboR6.Visible = True
cboR7.Visible = True
cboR8.Visible = True
cboR9.Visible = False
cboR10.Visible = False
cboR11.Visible = False
cboR12.Visible = False
cboR13.Visible = False
cboR14.Visible = False
cboR15.Visible = False
cboR16.Visible = False
cboR17.Visible = False
cboR18.Visible = False
cboR19.Visible = False
cboR20.Visible = False
cboR21.Visible = False
cboR22.Visible = False
cboR23.Visible = False
cboR24.Visible = False
```

```
lblR1.Visible = True
lblR2.Visible = True
lblR3.Visible = True
lblR4.Visible = True
lblR5.Visible = True
lblR6.Visible = True
lblR7.Visible = True
```


lblR8.Visible = True
lblR9.Visible = False
lblR10.Visible = False
lblR11.Visible = False
lblR12.Visible = False
lblR13.Visible = False
lblR14.Visible = False
lblR15.Visible = False
lblR16.Visible = False
lblR17.Visible = False
lblR18.Visible = False
lblR19.Visible = False
lblR20.Visible = False
lblR21.Visible = False
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material] From [refUtencils] Where [Material] Is Not Null"

lblR1.Caption = "Material:"

cboR2.RowSource = "Select Distinct [Completeness] From [refUtencils] Where [Completeness] Is Not Null"

lblR2.Caption = "Completeness:"

cboR3.RowSource = "Select Distinct [UtencilForm] From [refUtencils] Where [UtencilForm] Is Not Null"

lblR3.Caption = "Form:"

cboR4.RowSource = "Select Distinct [Plating] From [refUtencils] Where [Plating] Is Not Null"

lblR4.Caption = "Plating:"

cboR5.RowSource = "Select Distinct [HandelDecor] From [refUtencils] Where [HandelDecor] Is Not Null"

lblR5.Caption = "Handel Decor:"

cboR6.RowSource = "Select Distinct [SpoonRatTail] From [refUtencils] Where [SpoonRatTail] Is Not Null"

lblR6.Caption = "Spoon Rat Tail:"

cboR7.RowSource = "Select Distinct [NumberTines] From [refUtencils] Where [NumberTines] Is Not Null"

lblR7.Caption = "Number of Tines:"

```
cboR8.RowSource = "Select Distinct [Markings] From [refUtencils] Where [Markings] Is Not Null"
```

```
lblR8.Caption = "Markings:"
```

```
cmdOne.Visible = True
```

```
cmdOne.Caption = "Utensil Specifics"
```

```
cmdTwo.Visible = False
```

```
cmdThree.Visible = False
```

```
cmdFour.Visible = False
```

```
End If
```

```
'Lithic category form changes.
```

```
If cboCategory.Text = "Lithic" Then
```

```
cboR1.Visible = True
```

```
cboR2.Visible = True
```

```
cboR3.Visible = True
```

```
cboR4.Visible = True
```

```
cboR5.Visible = True
```

```
cboR6.Visible = True
```

```
cboR7.Visible = True
```

```
cboR8.Visible = True
```

```
cboR9.Visible = True
```

```
cboR10.Visible = True
```

```
cboR11.Visible = True
```

```
cboR12.Visible = True
```

```
cboR13.Visible = True
```

```
cboR14.Visible = True
```

```
cboR15.Visible = True
```

```
cboR16.Visible = True
```

```
cboR17.Visible = True
```

```
cboR18.Visible = True
```

```
cboR19.Visible = True
```

```
cboR20.Visible = True
```

```
cboR21.Visible = True
```

```
cboR22.Visible = False
```

```
cboR23.Visible = False
```

```
cboR24.Visible = False
```

```
lblR1.Visible = True
```

```
lblR2.Visible = True
```

```
lblR3.Visible = True
```

```
lblR4.Visible = True
```

```
lblR5.Visible = True
```

```
lblR6.Visible = True
```

lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = True
lblR10.Visible = True
lblR11.Visible = True
lblR12.Visible = True
lblR13.Visible = True
lblR14.Visible = True
lblR15.Visible = True
lblR16.Visible = True
lblR17.Visible = True
lblR18.Visible = True
lblR19.Visible = True
lblR20.Visible = True
lblR21.Visible = True
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [LithicType] From [refLithic] Where [LithicType] Is Not Null"
lblR1.Caption = "Lithic Type:"

cboR2.RowSource = "Select Distinct [Rock] From [refLithic] Where [Rock] Is Not Null"
lblR2.Caption = "Rock:"

cboR3.RowSource = "Select Distinct [Core] From [refLithic] Where [Core] Is Not Null"
lblR3.Caption = "Core:"

cboR4.RowSource = "Select Distinct [Debitage] From [refLithic] Where [Debitage] Is Not Null"
lblR4.Caption = "Debitage:"

cboR5.RowSource = "Select Distinct [DebitageForm] From [refLithic] Where [DebitageForm] Is Not Null"
lblR5.Caption = "Debitage Form:"

cboR6.RowSource = "Select Distinct [FlakeType] From [refLithic] Where [FlakeType] Is Not Null"
lblR6.Caption = "Flake Type:"

cboR7.RowSource = "Select Distinct [GeoClass] From [refLithic] Where [GeoClass] Is Not Null"
lblR7.Caption = "Geology Class:"

cboR8.RowSource = "Select Distinct [Material] From [refLithic] Where [Material] Is Not Null"
 lblR8.Caption = "Material:"

cboR9.RowSource = "Select Distinct [Color] From [refLithic] Where [Color] Is Not Null"
 lblR9.Caption = "Color:"

cboR10.RowSource = "Select Distinct [Cortex] From [refLithic] Where [Cortex] Is Not Null"
 lblR10.Caption = "Cortex:"

cboR12.RowSource = "Select Distinct [Termination] From [refLithic] Where [Termination] Is Not Null"
 lblR12.Caption = "Termination:"

cboR13.RowSource = "Select Distinct [BifacePreformUniface] From [refLithic] Where [BifacePreformUniface] Is Not Null"
 lblR13.Caption = "Biface/Preform/Uniface:"

cboR14.RowSource = "Select Distinct [GroundPecked] From [refLithic] Where [GroundPecked] Is Not Null"
 lblR14.Caption = "Ground/Pecked:"

cboR15.RowSource = "Select Distinct [ProjPointHalfed] From [refLithic] Where [ProjPointHalfed] Is Not Null"
 lblR15.Caption = "Projectile Point/Halfed:"

cboR16.RowSource = "Select Distinct [Completeness] From [refLithic] Where [Completeness] Is Not Null"
 lblR16.Caption = "Completeness:"

cboR17.RowSource = "Select Distinct [ScarCount] From [refLithic] Where [ScarCount] Is Not Null"
 lblR17.Caption = "Scar Count:"

cboR18.RowSource = "Select Distinct [FlakeTool] From [refLithic] Where [FlakeTool] Is Not Null"
 lblR18.Caption = "Flake Tool:"

cboR19.RowSource = "Select Distinct [Type] From [refLithic] Where [Type] Is Not Null"
 lblR19.Caption = "Type:"

cboR20.RowSource = "Select Distinct [Platform] From [refLithic] Where [Platform] Is Not Null"
 lblR20.Caption = "Platform:"

```

cboR21.RowSource = "Select Distinct [Era] From [refLithic] Where [Era] Is Not Null"
lblR21.Caption = "Era:"

cmdOne.Visible = False
cmdTwo.Visible = False
cmdThree.Visible = False
cmdFour.Visible = False
End If

'Other_Unknown category form changes.
If cboCategory.Text = "Other_Unknown" Then

    cboR1.Visible = True
    cboR2.Visible = True
    cboR3.Visible = True
    cboR4.Visible = True
    cboR5.Visible = True
    cboR6.Visible = True
    cboR7.Visible = True
    cboR8.Visible = True
    cboR9.Visible = False
    cboR10.Visible = False
    cboR11.Visible = False
    cboR12.Visible = False
    cboR13.Visible = False
    cboR14.Visible = False
    cboR15.Visible = False
    cboR16.Visible = False
    cboR17.Visible = False
    cboR18.Visible = False
    cboR19.Visible = False
    cboR20.Visible = False
    cboR21.Visible = False
    cboR22.Visible = False
    cboR23.Visible = False
    cboR24.Visible = False

    lblR1.Visible = True
    lblR2.Visible = True
    lblR3.Visible = True
    lblR4.Visible = True
    lblR5.Visible = True
    lblR6.Visible = True
    lblR7.Visible = True
    lblR8.Visible = True

```

lblR9.Visible = False
lblR10.Visible = False
lblR11.Visible = False
lblR12.Visible = False
lblR13.Visible = False
lblR14.Visible = False
lblR15.Visible = False
lblR16.Visible = False
lblR17.Visible = False
lblR18.Visible = False
lblR19.Visible = False
lblR20.Visible = False
lblR21.Visible = False
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material1] From [refOtherUnknown] Where
[Material1] Is Not Null"
lblR1.Caption = "Material 1:"

cboR2.RowSource = "Select Distinct [Material1] From [refOtherUnknown] Where
[Material1] Is Not Null"
lblR2.Caption = "Material 2:"

cboR3.RowSource = "Select Distinct [Completeness] From [refOtherUnknown] Where
[Completeness] Is Not Null"
lblR3.Caption = "Completeness:"

cboR4.RowSource = "Select Distinct [Manufacture] From [refOtherUnknown] Where
[Manufacture] Is Not Null"
lblR4.Caption = "Manufacture:"

cboR5.RowSource = "Select Distinct [Shape] From [refOtherUnknown]"
lblR5.Caption = "Shape:"

cboR6.RowSource = "Select Distinct [Period] From [refOtherUnknown] Where [Period] Is
Not Null"
lblR6.Caption = "Period:"

cboR7.RowSource = "Select Distinct [DecorationTechnique] From [refOtherUnknown]
Where [DecorationTechnique] Is Not Null"
lblR7.Caption = "Decoration Technique:"

cboR8.RowSource = ""

```

    lblR8.Caption = "Color:"

    cmdOne.Visible = False
    cmdTwo.Visible = False
    cmdThree.Visible = False
    cmdFour.Visible = False

End If
End Sub

Private Sub cboR14_AfterUpdate()
'If Me.cboCategory.Text = "Ceramic" Then
'    Me.MedianDate.Text = Query!qry
End Sub

Private Sub cmdNewArtifact_Click()
On Error GoTo Err_cmdNewArtifact_Click

    DoCmd.GoToRecord , , acNewRec
    Me.txtFSNum.Value = Me.txtFSNum.Tag
    Me.txtContext.Value = Me.txtContext.Tag
    Me.cboFuncGrp.SetFocus

Exit_cmdNewArtifact_Click:
Exit Sub

Err_cmdNewArtifact_Click:
    MsgBox Err.Description
    Resume Exit_cmdNewArtifact_Click

End Sub

Private Sub cmdCloseArtForm_Click()
On Error GoTo Err_cmdCloseArtForm_Click

    If Me.Dirty Then Me.Dirty = False
    DoCmd.Close

Exit_cmdCloseArtForm_Click:
Exit Sub

Err_cmdCloseArtForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdCloseArtForm_Click

```

End Sub

Private Sub cmdOne_Click()

Me.Refresh

'Controls for Button One that change with Category text.

'Ceramic Decoration

If Me.cmdOne.Caption = "Ceramic Decoration" Then

DoCmd.OpenForm "frmCeramicDecor", , , "[ArtifactKey]=" & Me![ID]

'Glass Decoration

Elseif Me.cmdOne.Caption = "Glass Decoration" Then

DoCmd.OpenForm "frmGlassDecor", , , "[ArtifactKey]=" & Me![ID]

'Masonry Decoration

Elseif Me.cmdOne.Caption = "Masonry Decoration" Then

DoCmd.OpenForm "frmMasonryDecor", , , "[ArtifactKey]=" & Me![ID]

'Metal Measurement form

Elseif Me.cmdOne.Caption = "Metal Measure" Then

DoCmd.OpenForm "frmMetalMeasure", , , "[ArtifactKey]=" & Me![ID]

'Tobacco decoration

Elseif Me.cmdOne.Caption = "Tobacco Decor" Then

DoCmd.OpenForm "frmTobaccoDecor", , , "[ArtifactKey]=" & Me![ID]

'Utencil Spec form

Elseif Me.cmdOne.Caption = "Utencil Specifics" Then

DoCmd.OpenForm "frmGlassDecor", , , "[ArtifactKey]=" & Me![ID]

End If

End Sub

Private Sub cmdTwo_Click()

Me.Refresh

'Controls for Button Two that change with Category text.

'Ceramic Paste Inclusions

If Me.cmdTwo.Caption = "Paste Inclusions" Then

DoCmd.OpenForm "frmCeramicInclusions", , , "[ArtifactKey]=" & Me![ID]

'Glass Bottle Info form

Elseif Me.cmdTwo.Caption = "Bottle Info Form" Then

DoCmd.OpenForm "frmGlassBottleInfo", , , "[ArtifactKey]=" & Me![ID]

'Tobacco Text Marks

Elseif Me.cmdTwo.Caption = "Text Marks" Then


```

        DoCmd.OpenForm "frmTobaccoTextMark", , , "[ArtifactKey]=" & Me![ID]
        'Error Message Box
    End If

End Sub

Private Sub cmdThree_Click()

Me.Refresh

'Controls for Button Three that change with Category text.
'Ceramic Wear Mark form
If Me.cmdThree.Caption = "Wear Marks" Then
    DoCmd.OpenForm "frmCeramicsWearMark", , , "[ArtifactKey]=" & Me![ID]
End If

End Sub
Private Sub cmdFour_Click()

Me.Refresh

'Controls for Button Four that change with Category text.
'Ceramic Colonoware form
If Me.cmdFour.Caption = "Colonoware Form" Then
    DoCmd.OpenForm "frmCeramicsColonoware", , , "[ArtifactKey]=" & Me![ID]
End If

End Sub

Private Sub Form_current()
'Bone category form changes.
'v.0.9 paste test - same error
If Me!cboCategory = "Bone" Then

    Me!cboR1.Visible = True
    Me!cboR2.Visible = True
    Me!cboR3.Visible = True
    Me!cboR4.Visible = True
    Me!cboR5.Visible = True
    Me!cboR6.Visible = True
    Me!cboR7.Visible = True
    Me!cboR8.Visible = True
    Me!cboR9.Visible = True
    Me!cboR10.Visible = True

```

Me!cboR11.Visible = True
Me!cboR12.Visible = True
Me!cboR13.Visible = True
Me!cboR14.Visible = True
Me!cboR15.Visible = True
Me!cboR16.Visible = True
Me!cboR17.Visible = True
Me!cboR18.Visible = True
Me!cboR19.Visible = True
Me!cboR20.Visible = True
Me!cboR21.Visible = False
Me!cboR22.Visible = False
Me!cboR23.Visible = False
Me!cboR24.Visible = False

Me!lblr1.Visible = True
Me!lblr2.Visible = True
Me!lblr3.Visible = True
Me!lblr4.Visible = True
Me!lblr5.Visible = True
Me!lblr6.Visible = True
Me!lblr7.Visible = True
Me!lblr8.Visible = True
Me!lblr9.Visible = True
Me!lblr10.Visible = True
Me!lblr11.Visible = True
Me!lblr12.Visible = True
Me!lblr13.Visible = True
Me!lblr14.Visible = True
Me!lblr15.Visible = True
Me!lblr16.Visible = True
Me!lblr17.Visible = True
Me!lblr18.Visible = True
Me!lblr19.Visible = True
Me!lblr20.Visible = True
Me!lblr21.Visible = False
Me!lblr22.Visible = False
lblr23.Visible = False
Me!lblr24.Visible = False

Me!cboR1.RowSource = "Select Distinct [Material] From [refBone] Where [Material] Is Not Null"

Me!lblr1.Caption = "Material:"

```

Me!cboR2.RowSource = "Select Distinct [Completeness] From [refBone] Where
[Completeness] Is Not Null"
Me!lblr2.Caption = "Completeness:"

Me!cboR3.RowSource = "Select Distinct [BoneSize] From [refBone] Where [BoneSize] Is Not
Null"
Me!lblr3.Caption = "Bone Size:"

Me!cboR4.RowSource = "Select Distinct [English] From [refBoneTaxonomy] Where [English]
Is Not Null"
Me!lblr4.Caption = "Taxonomy (English):"

Me!cboR5.RowSource = "Select Distinct [BoneElement] From [refBoneElement] Where
[BoneElement] Is Not Null"
Me!lblr5.Caption = "Bone Element:"

Me!cboR6.RowSource = "Select Distinct [LocationID] From [refBone]"
Me!lblr6.Caption = "Location ID:"

Me!cboR7.RowSource = "Select Distinct [DescriptorID] From [refBone] Where
[DescriptorID] Is Not Null"
Me!lblr7.Caption = "Descriptor ID:"

Me!cboR8.RowSource = "Select Distinct [FusionID] From [refBone] Where [FusionID] Is Not
Null"
Me!lblr8.Caption = "Fusion ID:"

Me!cboR9.RowSource = "Select Distinct [Sex] From [refBone] Where [Sex] Is Not Null"
Me!lblr9.Caption = "Sex:"

Me!cboR10.RowSource = "Select Distinct [DiseaseTrauma] From [refBone] Where
[DiseaseTrauma] Is Not Null"
Me!lblr10.Caption = "Disease/Trauma:"

Me!cboR11.RowSource = "Select Distinct [ToothType] From [refBone] Where [ToothType]
Is Not Null"
Me!lblr11.Caption = "Tooth Type:"

Me!cboR12.RowSource = "Select Distinct [ChewType] From [refBone] Where [ChewType] Is
Not Null"
Me!lblr12.Caption = "Chew Type:"

Me!cboR13.RowSource = "Select Distinct [ChewLocation] From [refBone] Where
[ChewLocation] Is Not Null"
Me!lblr13.Caption = "Chew Location:"

```

```

    Me!cboR14.RowSource = "Select Distinct [ButcherMethod] From [refBone] Where
[ButcherMethod] Is Not Null"
    Me!lbr14.Caption = "Butcher Method:"

    Me!cboR15.RowSource = "Select Distinct [ButcherLocation] From [refBone] Where
[ButcherLocation] Is Not Null"
    Me!lbr15.Caption = "Butcher Location:"

    Me!cboR16.RowSource = "Select Distinct [BoneMarkType] From [refBone] Where
[BoneMarkType] Is Not Null"
    Me!lbr16.Caption = "Mark Type:"

    Me!cboR17.RowSource = "Select Distinct [BoneMarkLocation] From [refBone] Where
[BoneMarkLocation] Is Not Null"
    Me!lbr17.Caption = "Mark Location:"

    Me!cboR18.RowSource = "Select Distinct [BoneMarkDirection] From [refBone] Where
[BoneMarkDirection] Is Not Null"
    Me!lbr18.Caption = "Mark Direction:"

    Me!cboR19.RowSource = "Select Distinct [NumCutMarks] From [refBone]"
    Me!lbr19.Caption = "Number of Cut Marks:"

    Me!cboR20.RowSource = "Select Distinct [Reliability] From [refBone]"
    Me!lbr20.Caption = "Reliability:"

    Me!cmdOne.Visible = False
    Me!cmdTwo.Visible = False
    Me!cmdThree.Visible = False
    Me!cmdFour.Visible = False

End If

'Bead category form changes.
If Me!cboCategory = "Bead" Then
    Me!cboR1.Visible = True
    Me!cboR2.Visible = True
    Me!cboR3.Visible = True
    Me!cboR4.Visible = True
    Me!cboR5.Visible = True
    Me!cboR6.Visible = True
    Me!cboR7.Visible = True
    Me!cboR8.Visible = True
    Me!cboR9.Visible = True

```

Me!cboR10.Visible = True
Me!cboR11.Visible = True
Me!cboR12.Visible = True
Me!cboR13.Visible = True
Me!cboR14.Visible = False
Me!cboR15.Visible = False
Me!cboR16.Visible = False
Me!cboR17.Visible = False
Me!cboR18.Visible = False
Me!cboR19.Visible = False
Me!cboR20.Visible = False
Me!cboR21.Visible = False
Me!cboR22.Visible = False
Me!cboR23.Visible = False
Me!cboR24.Visible = False

Me!lblr1.Visible = True
Me!lblr2.Visible = True
Me!lblr3.Visible = True
Me!lblr4.Visible = True
Me!lblr5.Visible = True
Me!lblr6.Visible = True
Me!lblr7.Visible = True
Me!lblr8.Visible = True
Me!lblr9.Visible = True
Me!lblr10.Visible = True
Me!lblr11.Visible = True
Me!lblr12.Visible = True
Me!lblr13.Visible = True
Me!lblr14.Visible = False
Me!lblr15.Visible = False
Me!lblr16.Visible = False
Me!lblr17.Visible = False
Me!lblr18.Visible = False
Me!lblr19.Visible = False
Me!lblr20.Visible = False
Me!lblr21.Visible = False
Me!lblr22.Visible = False
Me!lblr23.Visible = False
Me!lblr24.Visible = False

Me!cboR1.RowSource = "Select Distinct [Material] From [refBead] Where [Material] Is Not Null"

lblr1.Caption = "Material:"

Me!cboR2.RowSource = "Select Distinct [Completeness] From [refBead] Where [Completeness] Is Not Null"

Me!lblr2.Caption = "Completeness:"

Me!cboR3.RowSource = "Select Distinct [Manufacture] From [refBead] Where [Manufacture] Is Not Null"

Me!lblr3.Caption = "Manufacture:"

Me!cboR4.RowSource = "Select Distinct [BeadStructure] From [refBead] Where [BeadStructure] Is Not Null"

Me!lblr4.Caption = "Bead Structure:"

Me!cboR5.RowSource = "Select Distinct [BeadForm] From [refBead] Where [BeadForm] Is Not Null"

Me!lblr5.Caption = "Bead Form:"

Me!cboR6.RowSource = "Select Distinct [BeadShape] From [refBead] Where [BeadShape] Is Not Null"

Me!lblr6.Caption = "Bead Shape:"

Me!cboR6.RowSource = "Select Distinct [SizeofPerforationI] From [refBead]"

Me!lblr7.Caption = "Perforation Size 1:"

Me!cboR6.RowSource = "Select Distinct [SizeofPerforationII] From [refBead]"

Me!lblr8.Caption = "Perforation Size 2:"

Me!cboR9.RowSource = "Select Distinct [EndTreatment] From [refBead] Where [EndTreatment] Is Not Null"

Me!lblr9.Caption = "End Treatment:"

Me!cboR10.RowSource = "Select Distinct [HeatTreated] From [refBead] Where [HeatTreated] Is Not Null"

Me!lblr10.Caption = "Heat Treated:"

Me!cboR11.RowSource = "Select Distinct [MunsellColorCode] From [refMunsellRGB] Where [MunsellColorCode] Is Not Null"

Me!lblr11.Caption = "Bead Color:"

Me!cboR12.RowSource = "Select Distinct [Diaphaneity] From [refBead] Where [Diaphaneity] Is Not Null"

Me!lblr12.Caption = "Diaphaneity:"

Me!cboR13.RowSource = "Select Distinct [Patination] From [refBead] Where [Patination] Is Not Null"

Me!lblr13.Caption = "Patination:"

```
Me!cmdOne.Visible = False
Me!cmdTwo.Visible = False
Me!cmdThree.Visible = False
Me!cmdFour.Visible = False
End If
```

```
'Ceramic category form changes.
If Me!cboCategory = "Ceramic" Then
```

```
Me!cboR1.Visible = True
Me!cboR2.Visible = True
Me!cboR3.Visible = True
Me!cboR4.Visible = True
Me!cboR5.Visible = True
Me!cboR6.Visible = True
Me!cboR7.Visible = True
Me!cboR8.Visible = True
Me!cboR9.Visible = True
Me!cboR10.Visible = True
Me!cboR11.Visible = True
Me!cboR12.Visible = True
Me!cboR13.Visible = True
Me!cboR14.Visible = True
Me!cboR15.Visible = False
Me!cboR16.Visible = False
Me!cboR17.Visible = False
Me!cboR18.Visible = False
Me!cboR19.Visible = False
Me!cboR20.Visible = False
Me!cboR21.Visible = False
Me!cboR22.Visible = False
Me!cboR23.Visible = False
Me!cboR24.Visible = False
```

```
Me!lblR1.Visible = True
Me!lblR2.Visible = True
Me!lblR3.Visible = True
Me!lblR4.Visible = True
Me!lblR5.Visible = True
Me!lblR6.Visible = True
Me!lblR7.Visible = True
Me!lblR8.Visible = True
Me!lblR9.Visible = True
Me!lblR10.Visible = True
```

Me!lbr11.Visible = True
Me!lbr12.Visible = True
Me!lbr13.Visible = True
Me!lbr14.Visible = True
Me!lbr15.Visible = False
Me!lbr16.Visible = False
Me!lbr17.Visible = False
Me!lbr18.Visible = False
Me!lbr19.Visible = False
Me!lbr20.Visible = False
Me!lbr21.Visible = False
Me!lbr22.Visible = False
Me!lbr23.Visible = False
Me!lbr24.Visible = False

Me!cboR1.RowSource = "Select Distinct [Material] From [refCeramics] Where [Material] Is Not Null"

Me!lbr1.Caption = "Material:"

Me!cboR6.RowSource = "Select Distinct [Completeness] From [refCeramics] Where [Completeness] Is Not Null"

Me!lbr6.Caption = "Completeness:"

Me!cboR9.RowSource = "Select Distinct [Manufacture] From [refCeramics] Where [Manufacture] Is Not Null"

Me!lbr9.Caption = "Manufacture:"

Me!cboR2.RowSource = "Select Distinct [Wares] From [refCeramics] Where [Wares] Is Not Null"

Me!lbr2.Caption = "Ware:"

Me!cboR5.RowSource = "Select Distinct [VesselCategory] From [refCeramics] Where [VesselCategory] Is Not Null"

Me!lbr5.Caption = "Vessel Category:"

Me!cboR7.RowSource = "Select Distinct [Form] From [refCeramics] Where [Form] Is Not Null"

Me!lbr7.Caption = "Form:"

Me!cboR8.RowSource = "Select Distinct [MendedForm] From [refCeramics] Where [MendedForm] Is Not Null"

Me!lbr8.Caption = "Mended Form:"

Me!cboR3.RowSource = "Select Distinct [ExteriorSurface] From [refCeramics] Where [ExteriorSurface] Is Not Null"


```

Me!lbr3.Caption = "Exterior Surface:"

Me!cboR4.RowSource = "Select Distinct [InteriorSurface] From [refCeramics] Where
[InteriorSurface] Is Not Null"
Me!lbr4.Caption = "Interior Surface:"

Me!cboR10.RowSource = "Select Distinct [OxidizedReduced] From [refCeramics] Where
[OxidizedReduced] Is Not Null"
Me!lbr10.Caption = "Oxidized/Reduced:"

Me!cboR11.RowSource = "Select Distinct [PasteInclusions] From [refCeramics] Where
[PasteInclusions] Is Not Null"
Me!lbr11.Caption = "Paste Inclusions:"

Me!cboR12.RowSource = "Select Distinct [Burnt] From [refCeramics] Where [Burnt] Is Not
Null"
Me!lbr12.Caption = "Burn Description:"

Me!cboR13.RowSource = "Select Distinct [MunsellColorCode] From [refMunsellRGB]
Where [MunsellColorCode] Is Not Null"
Me!lbr13.Caption = "Paste/Body Color:"

Me!cboR14.RowSource = "Select Distinct [MeanCeramicDateTypes] From [tblMCDTypes]
Where [MeanCeramicDateTypes] Is Not Null"
Me!lbr14.Caption = "MCD Type:"

Dim ID As Integer
ID = Me!ID.Value
Me!cmdOne.Visible = True
Me!cmdOne.Caption = "Ceramic Decoration"
Me!cmdTwo.Visible = True
Me!cmdTwo.Caption = "Paste Inclusions"
Me!cmdThree.Visible = True
Me!cmdThree.Caption = "Wear Marks"
Me!cmdFour.Visible = True
Me!cmdFour.Caption = "Colonoware Form"
End If

'Glass catrgory form changes
If Me!cboCategory = "Glass" Then

Me!cboR1.Visible = True
Me!cboR2.Visible = True
Me!cboR3.Visible = True
Me!cboR4.Visible = True

```

Me!cboR5.Visible = True
Me!cboR6.Visible = True
Me!cboR7.Visible = True
Me!cboR8.Visible = True
Me!cboR9.Visible = True
Me!cboR10.Visible = True
Me!cboR11.Visible = True
Me!cboR12.Visible = True
Me!cboR13.Visible = True
Me!cboR14.Visible = True
Me!cboR15.Visible = True
Me!cboR16.Visible = True
Me!cboR17.Visible = True
Me!cboR18.Visible = True
Me!cboR19.Visible = True
Me!cboR20.Visible = True
Me!cboR21.Visible = True
Me!cboR22.Visible = True
Me!cboR23.Visible = True
Me!cboR24.Visible = False

Me!lblr1.Visible = True
Me!lblr2.Visible = True
Me!lblr3.Visible = True
Me!lblr4.Visible = True
Me!lblr5.Visible = True
Me!lblr6.Visible = True
Me!lblr7.Visible = True
Me!lblr8.Visible = True
Me!lblr9.Visible = True
Me!lblr10.Visible = True
Me!lblr11.Visible = True
Me!lblr12.Visible = True
Me!lblr13.Visible = True
Me!lblr14.Visible = True
Me!lblr15.Visible = True
Me!lblr16.Visible = True
Me!lblr17.Visible = True
Me!lblr18.Visible = True
Me!lblr19.Visible = True
Me!lblr20.Visible = True
Me!lblr21.Visible = True
Me!lblr22.Visible = True
Me!lblr23.Visible = True
Me!lblr24.Visible = False

Me!cboR1.RowSource = "Select Distinct [Material] From [refGlass] Where [Material] Is Not Null"

Me!lblr1.Caption = "Material:"

Me!cboR2.RowSource = "Select Distinct [Completeness] From [refGlass] Where [Completeness] Is Not Null"

Me!lblr2.Caption = "Completeness:"

Me!cboR3.RowSource = "Select Distinct [Color] From [refGlass] Where [Color] Is Not Null"

Me!lblr3.Caption = "Color:"

Me!cboR4.RowSource = "Select Distinct [VesselForm] From [refGlass] Where [VesselForm] Is Not Null"

Me!lblr4.Caption = "Vessel Form:"

Me!cboR5.RowSource = "Select Distinct [Form] From [refGlass] Where [Form] Is Not Null"

Me!lblr5.Caption = "Form:"

Me!cboR6.RowSource = "Select Distinct [Manufacture] From [refGlass] Where [Manufacture] Is Not Null"

Me!lblr6.Caption = "Manufacture:"

Me!cboR7.RowSource = "Select Distinct [MoldType] From [refGlass] Where [MoldType] Is Not Null"

Me!lblr7.Caption = "Mended Form:"

Me!cboR8.RowSource = "Select Distinct [DecorativeTechnique] From [refGlass] Where [DecorativeTechnique] Is Not Null"

Me!lblr8.Caption = "Decorative Technique:"

Me!cboR9.RowSource = "Select Distinct [PontilMark] From [refGlass] Where [PontilMark] Is Not Null"

Me!lblr9.Caption = "Pontil Mark Type:"

Me!cboR10.RowSource = "Select Distinct [StemwareBodyShape] From [refGlass] Where [StemwareBodyShape] Is Not Null"

Me!lblr10.Caption = "Stemware Body Shape:"

Me!cboR11.RowSource = "Select Distinct [StemwareFootShape] From [refGlass] Where [StemwareFootShape] Is Not Null"

Me!lblr11.Caption = "Stemware Foot Shape:"

Me!cboR12.RowSource = "Select Distinct [StemShape] From [refGlass] Where [StemShape] Is Not Null"

```

Me!lbr12.Caption = "Stem Shape:"

Me!cboR13.RowSource = "Select Distinct [StylisticElement] From [refGlass] Where
[StylisticElement] Is Not Null"
Me!lbr13.Caption = "Stylistic Element:"

Me!cboR14.RowSource = "Select Distinct [GlassMarks] From [refGlass]"
Me!lbr14.Caption = "Glass Marks:"

Me!cboR15.RowSource = "Select Distinct [GlassMarkLocation] From [refGlass] Where
[GlassMarkLocation] Is Not Null"
Me!lbr15.Caption = "Mark Location:"

Me!cboR16.RowSource = "Select Distinct [StemLength] From [refGlass]"
Me!lbr16.Caption = "Stem Length:"

Me!cboR17.RowSource = "Select Distinct [SherdSize] From [refGlass]"
Me!lbr17.Caption = "Sherd Size:"

Me!cboR18.RowSource = "Select Distinct [SherdThickness] From [refGlass]"
Me!lbr18.Caption = "Sherd Thickness:"

Me!cboR19.RowSource = "Select Distinct [Rim Length] From [refGlass]"
Me!lbr19.Caption = "Rim Length:"

Me!cboR20.RowSource = "Select Distinct [RimDiam] From [refGlass]"
Me!lbr20.Caption = "Rim Diameter:"

Me!cboR21.RowSource = "Select Distinct [MendedRimDiam] From [refGlass]"
Me!lbr21.Caption = "Mended Rim Diameter:"

Me!cboR22.RowSource = "Select Distinct [ACDiam] From [refGlass]"
Me!lbr22.Caption = "AC Diameter:"

Me!cboR23.RowSource = "Select Distinct [TotalContainerHeight] From [refGlass] Where
[StemShape] Is Not Null"
Me!lbr23.Caption = "Total Container Height:"

Me!cmdOne.Visible = True
Me!cmdOne.Caption = "Glass Decoration"
Me!cmdTwo.Visible = True
Me!cmdTwo.Caption = "Bottle Info Form"
Me!cmdThree.Visible = False
Me!cmdFour.Visible = False

```

End If

'Masonry category form changes.

If Me!cboCategory = "Masonry" Then

Me!cboR1.Visible = True
Me!cboR2.Visible = True
Me!cboR3.Visible = True
Me!cboR4.Visible = True
Me!cboR5.Visible = True
Me!cboR6.Visible = True
Me!cboR7.Visible = True
Me!cboR8.Visible = True
Me!cboR9.Visible = True
Me!cboR10.Visible = True
Me!cboR11.Visible = True
Me!cboR12.Visible = False
Me!cboR13.Visible = False
Me!cboR14.Visible = False
Me!cboR15.Visible = False
Me!cboR16.Visible = False
Me!cboR17.Visible = False
Me!cboR18.Visible = False
Me!cboR19.Visible = False
Me!cboR20.Visible = False
Me!cboR21.Visible = False
Me!cboR22.Visible = False
Me!cboR23.Visible = False
Me!cboR24.Visible = False

Me!lbr1.Visible = True
Me!lbr2.Visible = True
Me!lbr3.Visible = True
Me!lbr4.Visible = True
Me!lbr5.Visible = True
Me!lbr6.Visible = True
Me!lbr7.Visible = True
Me!lbr8.Visible = True
Me!lbr9.Visible = True
Me!lbr10.Visible = True
Me!lbr11.Visible = True
Me!lbr12.Visible = False
Me!lbr13.Visible = False
Me!lbr14.Visible = False
Me!lbr15.Visible = False

Me!lbr16.Visible = False
Me!lbr17.Visible = False
Me!lbr18.Visible = False
Me!lbr19.Visible = False
Me!lbr20.Visible = False
Me!lbr21.Visible = False
Me!lbr22.Visible = False
Me!lbr23.Visible = False
Me!lbr24.Visible = False

Me!cboR1.RowSource = "Select Distinct [Material] From [refMasonry] Where [Material] Is Not Null"
Me!lbr1.Caption = "Material:"

Me!cboR2.RowSource = "Select Distinct [Completeness] From [refMasonry] Where [Completeness] Is Not Null"
Me!lbr2.Caption = "Completeness:"

Me!cboR3.RowSource = "Select Distinct [MasonryClass] From [refMasonry] Where [MasonryClass] Is Not Null"
Me!lbr3.Caption = "Class:"

Me!cboR4.RowSource = "Select Distinct [OrigLocation] From [refMasonry] Where [OrigLocation] Is Not Null"
Me!lbr4.Caption = "Original Location:"

Me!cboR5.RowSource = "Select Distinct [Manufacture] From [refMasonry] Where [Manufacture] Is Not Null"
Me!lbr5.Caption = "Manufacture:"

Me!cboR6.RowSource = "Select Distinct [MunsellColorCode] From [refMunsellRGB] Where [MunsellColorCode] Is Not Null"
Me!lbr6.Caption = "Body Color:"

Me!cboR7.RowSource = "Select Distinct [NumHoles] From [refMasonry] Where [NumHoles] Is Not Null"
Me!lbr7.Caption = "Number of Holes:"

Me!cboR8.RowSource = "Select Distinct [Inclusion1] From [refMasonry] Where [Inclusion1] Is Not Null"
Me!lbr8.Caption = "Inclusion 1:"

Me!cboR9.RowSource = "Select Distinct [Inclusion2] From [refMasonry] Where [Inclusion2] Is Not Null"
Me!lbr9.Caption = "Inclusion 2:"

```

    Me!cboR10.RowSource = "Select Distinct [Decoration] From [refMasonry] Where
[Decoration] Is Not Null"
    Me!lblR10.Caption = "Decoration:"

    Me!cboR11.RowSource = "Select Distinct [Num_Whole] From [refMasonry] Where
[Num_Whole] Is Not Null"
    Me!lblR11.Caption = "Number Whole:"

    Me!cmdOne.Visible = True
    Me!cmdOne.Caption = "Masonry Decoration"
    Me!cmdTwo.Visible = False
    Me!cmdThree.Visible = False
    Me!cmdFour.Visible = False

End If

'Metal category form changes.
If Me!cboCategory = "Metal" Then

    Me!cboR1.Visible = True
    Me!cboR2.Visible = True
    Me!cboR3.Visible = True
    Me!cboR4.Visible = True
    Me!cboR5.Visible = True
    Me!cboR6.Visible = True
    Me!cboR7.Visible = True
    Me!cboR8.Visible = True
    Me!cboR9.Visible = True
    Me!cboR10.Visible = True
    Me!cboR11.Visible = True
    Me!cboR12.Visible = True
    Me!cboR13.Visible = True
    Me!cboR14.Visible = True
    Me!cboR15.Visible = True
    Me!cboR16.Visible = True
    Me!cboR17.Visible = True
    Me!cboR18.Visible = False
    Me!cboR19.Visible = False
    Me!cboR20.Visible = False
    Me!cboR21.Visible = False
    Me!cboR22.Visible = False
    Me!cboR23.Visible = False
    Me!cboR24.Visible = False

```

```

Me!lbr1.Visible = True
Me!lbr2.Visible = True
Me!lbr3.Visible = True
Me!lbr4.Visible = True
Me!lbr5.Visible = True
Me!lbr6.Visible = True
Me!lbr7.Visible = True
Me!lbr8.Visible = True
Me!lbr9.Visible = True
Me!lbr10.Visible = True
Me!lbr11.Visible = True
Me!lbr12.Visible = True
Me!lbr13.Visible = True
Me!lbr14.Visible = True
Me!lbr15.Visible = True
Me!lbr16.Visible = True
Me!lbr17.Visible = True
Me!lbr18.Visible = False
Me!lbr19.Visible = False
Me!lbr20.Visible = False
Me!lbr21.Visible = False
Me!lbr22.Visible = False
Me!lbr23.Visible = False
Me!lbr24.Visible = False

```

```

Me!cboR1.RowSource = "Select Distinct [Material] From [refMetal] Where [Material] Is Not Null"

```

```

Me!lbr1.Caption = "Material:"

```

```

Me!cboR2.RowSource = "Select Distinct [Completeness] From [refMetal] Where [Completeness] Is Not Null"

```

```

Me!lbr2.Caption = "Completeness:"

```

```

Me!cboR3.RowSource = "Select Distinct [Form] From [refMetal] Where [Form] Is Not Null"

```

```

Me!lbr3.Caption = "Form:"

```

```

Me!cboR4.RowSource = "Select Distinct [Part] From [refMetal] Where [Part] Is Not Null"

```

```

Me!lbr4.Caption = "Part:"

```

```

Me!cboR5.RowSource = "Select Distinct [Manufacture] From [refMetal] Where [Manufacture] Is Not Null"

```

```

Me!lbr5.Caption = "Manufacture:"

```

```

Me!cboR6.RowSource = "Select Distinct [HeadType] From [refMetal] Where [HeadType] Is Not Null"

```



```

Me!lbr6.Caption = "Head Type:"

Me!cboR7.RowSource = "Select Distinct [FastenerType] From [refMetal] Where
[FastenerType] Is Not Null"
Me!lbr7.Caption = "Fastener Type:"

Me!cboR8.RowSource = "Select Distinct [PennyWeight] From [refMetal] Where
[PennyWeight] Is Not Null"
Me!lbr8.Caption = "Penny Weight:"

Me!cboR9.RowSource = "Select Distinct [MunsellColorCode] From [refMunsellRGB] Where
[MunsellColorCode] Is Not Null"
Me!lbr9.Caption = "Body Color:"

Me!cboR10.RowSource = "Select Distinct [MunsellColorCode] From [refMunsellRGB]
Where [MunsellColorCode] Is Not Null"
Me!lbr10.Caption = "Decor Color:"

Me!cboR11.RowSource = "Select Distinct [DecorTechnique] From [refMetal] "
Me!lbr11.Caption = "Decor Technique:"

Me!cboR12.RowSource = "Select Distinct [DecorDescription] From [refMetal] "
Me!lbr12.Caption = "Decor Description:"

Me!cboR13.RowSource = "Select Distinct [CoinType] From [refMetal] Where [CoinType] Is
Not Null"
Me!lbr13.Caption = "Coin Type:"

Me!cboR14.RowSource = "Select Distinct [CoinDate] From [refMetal] "
Me!lbr14.Caption = "Coin Date:"

Me!cboR15.RowSource = "Select Distinct [Text] From [refMetal] "
Me!lbr15.Caption = "Applied Text:"

Me!cboR16.RowSource = "Select Distinct [Manufacturer] From [refMetal] "
Me!lbr16.Caption = "Manufacturer:"

Me!cboR17.RowSource = "Select Distinct [ModelInfo] From [refMetal]"
Me!lbr17.Caption = "Model Info:"

Me!cmdOne.Visible = True
Me!cmdOne.Caption = "Metal Measure"
Me!cmdTwo.Visible = False
Me!cmdThree.Visible = False
Me!cmdFour.Visible = False

```

End If

'Tobacco category form changes.

If Me!cboCategory = "Tobacco" Then

cboR1.Visible = True
cboR2.Visible = True
cboR3.Visible = True
cboR4.Visible = True
cboR5.Visible = True
cboR6.Visible = True
cboR7.Visible = True
cboR8.Visible = True
cboR9.Visible = True
cboR10.Visible = True
cboR11.Visible = True
cboR12.Visible = True
cboR13.Visible = True
cboR14.Visible = True
cboR15.Visible = True
cboR16.Visible = True
cboR17.Visible = False
cboR18.Visible = False
cboR19.Visible = False
cboR20.Visible = False
cboR21.Visible = False
cboR22.Visible = False
cboR23.Visible = False
cboR24.Visible = False

lblR1.Visible = True
lblR2.Visible = True
lblR3.Visible = True
lblR4.Visible = True
lblR5.Visible = True
lblR6.Visible = True
lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = True
lblR10.Visible = True
lblR11.Visible = True
lblR12.Visible = True
lblR13.Visible = True
lblR14.Visible = True

lblR15.Visible = True
lblR16.Visible = True
lblR17.Visible = False
lblR18.Visible = False
lblR19.Visible = False
lblR20.Visible = False
lblR21.Visible = False
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material] From [refTobacco] Where [Material] Is Not Null"

lblR1.Caption = "Material:"

cboR2.RowSource = "Select Distinct [Completeness] From [refTobacco] Where [Completeness] Is Not Null"

lblR2.Caption = "Completeness:"

cboR3.RowSource = "Select Distinct [BowlForm] From [refTobacco] Where [BowlForm] Is Not Null"

lblR3.Caption = "Bowl Form:"

cboR4.RowSource = "Select Distinct [MouthpieceForm] From [refTobacco] Where [MouthpieceForm] Is Not Null"

lblR4.Caption = "Mouthpiece Form:"

cboR5.RowSource = "Select Distinct [BowlBaseType] From [refTobacco] Where [BowlBaseType] Is Not Null"

lblR5.Caption = "Bowl Base Type:"

cboR6.RowSource = "Select Distinct [StemLength] From [refTobacco] "

lblR6.Caption = "Stem Length:"

cboR7.RowSource = "Select Distinct [ExteriorStemDiam] From [refTobacco] "

lblR7.Caption = "Exterior Stem Diameter:"

cboR8.RowSource = "Select Distinct [BoreDiam] From [refTobacco] "

lblR8.Caption = "Bore Diameter:"

cboR9.RowSource = "Select Distinct [64thBoreDiam] From [refTobacco] Where [64thBoreDiam] Is Not Null"

lblR9.Caption = "64th Bore Diameter:"

cboR10.RowSource = "Select Distinct [CompleteBowlHeight] From [refTobacco] "

```

lblR10.Caption = "Complete Bowl Height:"

cboR11.RowSource = "Select Distinct [BowlVolume] From [refTobacco] "
lblR11.Caption = "Bowl Volume(cc):"

cboR12.RowSource = "Select Distinct [MaxBowlDiam] From [refTobacco] "
lblR12.Caption = "Max Bowl Diameter:"

cboR13.RowSource = "Select Distinct [BowlRimDiam] From [refTobacco] "
lblR13.Caption = "Bowl Rim Diameter:"

cboR14.RowSource = "Select Distinct [PasteInclusions] From [refTobacco] Where
[PasteInclusions] Is Not Null"
lblR14.Caption = "Paste Inclusions:"

cboR15.RowSource = "Select Distinct [ManufactureTechnique] From [refTobacco] Where
[ManufactureTechnique] Is Not Null"
lblR15.Caption = "Manufacture Technique:"

cboR16.RowSource = "Select Distinct [GlazeType] From [refTobacco] Where [GlazeType] Is
Not Null"
lblR16.Caption = "Glaze Type:"

cmdOne.Visible = True
cmdOne.Caption = "Tobacco Decor"
cmdTwo.Visible = True
cmdTwo.Caption = "Text Marks"
cmdThree.Visible = False
cmdFour.Visible = False

End If

'Utensil category form changes.
If Me!cboCategory = "Utensil" Then

cboR1.Visible = True
cboR2.Visible = True
cboR3.Visible = True
cboR4.Visible = True
cboR5.Visible = True
cboR6.Visible = True
cboR7.Visible = True
cboR8.Visible = True
cboR9.Visible = False
cboR10.Visible = False

```

cboR11.Visible = False
cboR12.Visible = False
cboR13.Visible = False
cboR14.Visible = False
cboR15.Visible = False
cboR16.Visible = False
cboR17.Visible = False
cboR18.Visible = False
cboR19.Visible = False
cboR20.Visible = False
cboR21.Visible = False
cboR22.Visible = False
cboR23.Visible = False
cboR24.Visible = False

lblR1.Visible = True
lblR2.Visible = True
lblR3.Visible = True
lblR4.Visible = True
lblR5.Visible = True
lblR6.Visible = True
lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = False
lblR10.Visible = False
lblR11.Visible = False
lblR12.Visible = False
lblR13.Visible = False
lblR14.Visible = False
lblR15.Visible = False
lblR16.Visible = False
lblR17.Visible = False
lblR18.Visible = False
lblR19.Visible = False
lblR20.Visible = False
lblR21.Visible = False
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material] From [refUtencils] Where [Material] Is Not Null"

lblR1.Caption = "Material:"

```

    cboR2.RowSource = "Select Distinct [Completeness] From [refUtencils] Where
[Completeness] Is Not Null"
    lblR2.Caption = "Completeness:"

    cboR3.RowSource = "Select Distinct [UtencilForm] From [refUtencils] Where [UtencilForm]
Is Not Null"
    lblR3.Caption = "Form:"

    cboR4.RowSource = "Select Distinct [Plating] From [refUtencils] Where [Plating] Is Not Null"
    lblR4.Caption = "Plating:"

    cboR5.RowSource = "Select Distinct [HandelDecor] From [refUtencils] Where
[HandelDecor] Is Not Null"
    lblR5.Caption = "Handel Decor:"

    cboR6.RowSource = "Select Distinct [SpoonRatTail] From [refUtencils] Where
[SpoonRatTail] Is Not Null"
    lblR6.Caption = "Spoon Rat Tail:"

    cboR7.RowSource = "Select Distinct [NumberTines] From [refUtencils] Where
[NumberTines] Is Not Null"
    lblR7.Caption = "Number of Tines:"

    cboR8.RowSource = "Select Distinct [Markings] From [refUtencils] Where [Markings] Is Not
Null"
    lblR8.Caption = "Markings:"

    cmdOne.Visible = True
    cmdOne.Caption = "Utensil Specifics"
    cmdTwo.Visible = False
    cmdThree.Visible = False
    cmdFour.Visible = False

End If

'Lithic category form changes.
If Me!cboCategory = "Lithic" Then
    cboR1.Visible = True
    cboR2.Visible = True
    cboR3.Visible = True
    cboR4.Visible = True
    cboR5.Visible = True
    cboR6.Visible = True
    cboR7.Visible = True
    cboR8.Visible = True

```

cboR9.Visible = True
cboR10.Visible = True
cboR11.Visible = True
cboR12.Visible = True
cboR13.Visible = True
cboR14.Visible = True
cboR15.Visible = True
cboR16.Visible = True
cboR17.Visible = True
cboR18.Visible = True
cboR19.Visible = True
cboR20.Visible = True
cboR21.Visible = True
cboR22.Visible = False
cboR23.Visible = False
cboR24.Visible = False

lblR1.Visible = True
lblR2.Visible = True
lblR3.Visible = True
lblR4.Visible = True
lblR5.Visible = True
lblR6.Visible = True
lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = True
lblR10.Visible = True
lblR11.Visible = True
lblR12.Visible = True
lblR13.Visible = True
lblR14.Visible = True
lblR15.Visible = True
lblR16.Visible = True
lblR17.Visible = True
lblR18.Visible = True
lblR19.Visible = True
lblR20.Visible = True
lblR21.Visible = True
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [LithicType] From [refLithic] Where [LithicType] Is Not Null"
lblR1.Caption = "Lithic Type:"

cboR2.RowSource = "Select Distinct [Rock] From [refLithic] Where [Rock] Is Not Null"
lblR2.Caption = "Rock:"

cboR3.RowSource = "Select Distinct [Core] From [refLithic] Where [Core] Is Not Null"
lblR3.Caption = "Core:"

cboR4.RowSource = "Select Distinct [Debitage] From [refLithic] Where [Debitage] Is Not Null"
lblR4.Caption = "Debitage:"

cboR5.RowSource = "Select Distinct [DebitageForm] From [refLithic] Where [DebitageForm] Is Not Null"
lblR5.Caption = "Debitage Form:"

cboR6.RowSource = "Select Distinct [FlakeType] From [refLithic] Where [FlakeType] Is Not Null"
lblR6.Caption = "Flake Type:"

cboR7.RowSource = "Select Distinct [GeoClass] From [refLithic] Where [GeoClass] Is Not Null"
lblR7.Caption = "Geology Class:"

cboR8.RowSource = "Select Distinct [Material] From [refLithic] Where [Material] Is Not Null"
lblR8.Caption = "Material:"

cboR9.RowSource = "Select Distinct [Color] From [refLithic] Where [Color] Is Not Null"
lblR9.Caption = "Color:"

cboR10.RowSource = "Select Distinct [Cortex] From [refLithic] Where [Cortex] Is Not Null"
lblR10.Caption = "Cortex:"

cboR12.RowSource = "Select Distinct [Termination] From [refLithic] Where [Termination] Is Not Null"
lblR12.Caption = "Termination:"

cboR13.RowSource = "Select Distinct [BifacePreformUniface] From [refLithic] Where [BifacePreformUniface] Is Not Null"
lblR13.Caption = "Biface/Preform/Uniface:"

cboR14.RowSource = "Select Distinct [GroundPecked] From [refLithic] Where [GroundPecked] Is Not Null"
lblR14.Caption = "Ground/Pecked:"


```

cboR15.RowSource = "Select Distinct [ProjPointHalfed] From [refLithic] Where
[ProjPointHalfed] Is Not Null"
lblR15.Caption = "Projectile Point/Halfed:"

cboR16.RowSource = "Select Distinct [Completeness] From [refLithic] Where
[Completeness] Is Not Null"
lblR16.Caption = "Completeness:"

cboR17.RowSource = "Select Distinct [ScarCount] From [refLithic] Where [ScarCount] Is Not
Null"
lblR17.Caption = "Scar Count:"

cboR18.RowSource = "Select Distinct [FlakeTool] From [refLithic] Where [FlakeTool] Is Not
Null"
lblR18.Caption = "Flake Tool:"

cboR19.RowSource = "Select Distinct [Type] From [refLithic] Where [Type] Is Not Null"
lblR19.Caption = "Type:"

cboR20.RowSource = "Select Distinct [Platform] From [refLithic] Where [Platform] Is Not
Null"
lblR20.Caption = "Platform:"

cboR21.RowSource = "Select Distinct [Era] From [refLithic] Where [Era] Is Not Null"
lblR21.Caption = "Era:"

cmdOne.Visible = False
cmdTwo.Visible = False
cmdThree.Visible = False
cmdFour.Visible = False
End If

'Other_Unknown category form changes.
If Me!cboCategory = "Other_Unknown" Then

cboR1.Visible = True
cboR2.Visible = True
cboR3.Visible = True
cboR4.Visible = True
cboR5.Visible = True
cboR6.Visible = True
cboR7.Visible = True
cboR8.Visible = True
cboR9.Visible = False
cboR10.Visible = False

```

cboR11.Visible = False
cboR12.Visible = False
cboR13.Visible = False
cboR14.Visible = False
cboR15.Visible = False
cboR16.Visible = False
cboR17.Visible = False
cboR18.Visible = False
cboR19.Visible = False
cboR20.Visible = False
cboR21.Visible = False
cboR22.Visible = False
cboR23.Visible = False
cboR24.Visible = False

lblR1.Visible = True
lblR2.Visible = True
lblR3.Visible = True
lblR4.Visible = True
lblR5.Visible = True
lblR6.Visible = True
lblR7.Visible = True
lblR8.Visible = True
lblR9.Visible = False
lblR10.Visible = False
lblR11.Visible = False
lblR12.Visible = False
lblR13.Visible = False
lblR14.Visible = False
lblR15.Visible = False
lblR16.Visible = False
lblR17.Visible = False
lblR18.Visible = False
lblR19.Visible = False
lblR20.Visible = False
lblR21.Visible = False
lblR22.Visible = False
lblR23.Visible = False
lblR24.Visible = False

cboR1.RowSource = "Select Distinct [Material1] From [refOtherUnknown] Where
[Material1] Is Not Null"
lblR1.Caption = "Material 1:"

```

cboR2.RowSource = "Select Distinct [Material1] From [refOtherUnknown] Where
[Material1] Is Not Null"
lblR2.Caption = "Material 2:"

cboR3.RowSource = "Select Distinct [Completeness] From [refOtherUnknown] Where
[Completeness] Is Not Null"
lblR3.Caption = "Completeness:"

cboR4.RowSource = "Select Distinct [Manufacture] From [refOtherUnknown] Where
[Manufacture] Is Not Null"
lblR4.Caption = "Manufacture:"

cboR5.RowSource = "Select Distinct [Shape] From [refOtherUnknown]"
lblR5.Caption = "Shape:"

cboR6.RowSource = "Select Distinct [Period] From [refOtherUnknown] Where [Period] Is
Not Null"
lblR6.Caption = "Period:"

cboR7.RowSource = "Select Distinct [DecorationTechnique] From [refOtherUnknown]
Where [DecorationTechnique] Is Not Null"
lblR7.Caption = "Decoration Technique:"

cboR8.RowSource = ""
lblR8.Caption = "Color:"

cmdOne.Visible = False
cmdTwo.Visible = False
cmdThree.Visible = False
cmdFour.Visible = False

End If

If Me!cboCategory = "" Then

Me!cboR1.Visible = False
Me!cboR2.Visible = False
Me!cboR3.Visible = False
Me!cboR4.Visible = False
Me!cboR5.Visible = False
Me!cboR6.Visible = False
Me!cboR7.Visible = False
Me!cboR8.Visible = False
Me!cboR9.Visible = False
Me!cboR10.Visible = False

```

Me!cboR11.Visible = False
Me!cboR12.Visible = False
Me!cboR13.Visible = False
Me!cboR14.Visible = False
Me!cboR15.Visible = False
Me!cboR16.Visible = False
Me!cboR17.Visible = False
Me!cboR18.Visible = False
Me!cboR19.Visible = False
Me!cboR20.Visible = False
Me!cboR21.Visible = False
Me!cboR22.Visible = False
Me!cboR23.Visible = False
Me!cboR24.Visible = False

Me!lblr1.Visible = False
Me!lblr2.Visible = False
Me!lblr3.Visible = False
Me!lblr4.Visible = False
Me!lblr5.Visible = False
Me!lblr6.Visible = False
Me!lblr7.Visible = False
Me!lblr8.Visible = False
Me!lblr9.Visible = False
Me!lblr10.Visible = False
Me!lblr11.Visible = False
Me!lblr12.Visible = False
Me!lblr13.Visible = False
Me!lblr14.Visible = False
Me!lblr15.Visible = False
Me!lblr16.Visible = False
Me!lblr17.Visible = False
Me!lblr18.Visible = False
Me!lblr19.Visible = False
Me!lblr20.Visible = False
Me!lblr21.Visible = False
Me!lblr22.Visible = False
Me!lblr23.Visible = False
Me!lblr24.Visible = False
Me!cmdOne.Visible = False
Me!cmdTwo.Visible = False
Me!cmdThree.Visible = False
Me!cmdFour.Visible = False

End If

End Sub

Private Sub Form_Dirty(Cancel As Integer)

'Runs when record is modified

'Display and fill out "Changed By" textbox

 'If Me.AddedBy.Value = "" Then

 ' Me.AddedBy.Value = CurrentUser

 ' End If

 ' If Me.AddedBy.Value Is Not Null Then

 ' Me.ChangedBy.Value = CurrentUser

 'End If

'Display and fill out "Date Changed" textbox

 ' If Me.DateAdded.Value Is Null Then

 ' Me.DateAdded.Value = Now

 'End If

 'If Me.DateAdded.Value Is Not Null Then

 ' Me.DateChanged.Value = Now

 ' End If

End Sub

Private Sub txtContext_AfterUpdate()

'Tag used by cmdNextArtifact to carry over entry to next page

Me.txtContext.Tag = Me.txtContext.Text

End Sub

Private Sub txtFSNum_AfterUpdate()

'Tag used by cmdNextArtifact to carry over entry to next page

Me.txtFSNum.Tag = Me.txtFSNum.Text

End Sub

Private Sub txtCategory_LostFocus()

'Fills out user information

If Me.txtAddedBy.Value Is Null Then

 Me.txtAddedBy.Locked = False

 Me.txtAddedBy.Value = CurrentUser

 Me.txtAddedBy.Text = Me.txtAddedBy.Value

```

        Me.txtAddedBy.Locked = True
    End If

    'Fills out creation date.
    If Me.txtDateAdded.Value Is Null Then
        Me.txtDateAdded.Locked = False
        Me.txtDateAdded.Value = Now
        Me.txtDateAdded.Text = Me.DateAdded.Value
        Me.txtDateAdded.Locked = True
    End If

End Sub

Private Sub cmdPreviewArtifactInfoSheet_Click()
    On Error GoTo Err_cmdPreviewArtifactInfoSheet_Click

    Dim stDocName As String

    stDocName = "repArtifactInfoSheet"
    DoCmd.OpenReport stDocName, acPreview

Exit_cmdPreviewArtifactInfoSheet_Click:
    Exit Sub

Err_cmdPreviewArtifactInfoSheet_Click:
    MsgBox Err.Description
    Resume Exit_cmdPreviewArtifactInfoSheet_Click

End Sub

Private Sub cmdNewFS_Click()
    On Error GoTo Err_cmdNewFS_Click

    DoCmd.GoToRecord , , acNewRec
    Me.txtFSNum.SetFocus

Exit_cmdNewFS_Click:
    Exit Sub

Err_cmdNewFS_Click:
    MsgBox Err.Description

```

```

Resume Exit_cmdNewFS_Click

End Sub
Private Sub cmdOpenBugForm_Click()
On Error GoTo Err_cmdOpenBugForm_Click

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmBugNotes"
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenBugForm_Click:
Exit Sub

Err_cmdOpenBugForm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenBugForm_Click

End Sub
Private Sub cmdOpenEditRefTableForm_Click()
On Error GoTo Err_cmdOpenEditRefTableForm_Click

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmEditReferenceTables"
DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenEditRefTableForm_Click:
Exit Sub

Err_cmdOpenEditRefTableForm_Click:
MsgBox Err.Description
Resume Exit_cmdOpenEditRefTableForm_Click

End Sub
Private Sub cmdOpenDataEntryForm_Click()
On Error GoTo Err_cmdOpenDataEntryForm_Click

Dim stDocName As String
Dim stLinkCriteria As String

stDocName = "frmDataEntryProgress"
DoCmd.OpenForm stDocName, , , stLinkCriteria

```

```

Exit_cmdOpenDataEntryForm_Click:
    Exit Sub

Err_cmdOpenDataEntryForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenDataEntryForm_Click

End Sub
Private Sub cmdOpenContextForm_Click()
On Error GoTo Err_cmdOpenContextForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmContext"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenContextForm_Click:
    Exit Sub

Err_cmdOpenContextForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenContextForm_Click

End Sub

```

Ceramic Decoration Subform Coding

```

Option Compare Database

Private Sub cmdAddNew_Click()
On Error GoTo Err_cmdAddNew_Click

    DoCmd.GoToRecord , , acNewRec

Exit_cmdAddNew_Click:
    Exit Sub

Err_cmdAddNew_Click:
    MsgBox Err.Description
    Resume Exit_cmdAddNew_Click

```



```

End Sub
Private Sub cmdCloseForm_Click()
On Error GoTo Err_cmdCloseForm_Click

    If Me.Dirty Then Me.Dirty = False
    DoCmd.Close

Exit_cmdCloseForm_Click:
Exit Sub

Err_cmdCloseForm_Click:
MsgBox Err.Description
Resume Exit_cmdCloseForm_Click

End Sub

Private Sub Form_Dirty(Cancel As Integer)

Me.ArtifactKey = Forms!frmArtifacts!ID

End Sub
Private Sub cmdLastRecord_Click()
On Error GoTo Err_cmdLastRecord_Click

    DoCmd.GoToRecord , , acLast

Exit_cmdLastRecord_Click:
Exit Sub

Err_cmdLastRecord_Click:
MsgBox Err.Description
Resume Exit_cmdLastRecord_Click

End Sub
Private Sub cmdFirstRecord_Click()
On Error GoTo Err_cmdFirstRecord_Click

    DoCmd.GoToRecord , , acFirst

Exit_cmdFirstRecord_Click:
Exit Sub

```

```

Err_cmdFirstRecord_Click:
    MsgBox Err.Description
    Resume Exit_cmdFirstRecord_Click

End Sub
Private Sub cmdNextRecord_Click()
On Error GoTo Err_cmdNextRecord_Click

    DoCmd.GoToRecord , , acNext

Exit_cmdNextRecord_Click:
    Exit Sub

Err_cmdNextRecord_Click:
    MsgBox Err.Description
    Resume Exit_cmdNextRecord_Click

End Sub
Private Sub cmdPrevRecord_Click()
On Error GoTo Err_cmdPrevRecord_Click

    DoCmd.GoToRecord , , acPrevious

Exit_cmdPrevRecord_Click:
    Exit Sub

Err_cmdPrevRecord_Click:
    MsgBox Err.Description
    Resume Exit_cmdPrevRecord_Click

End Sub
Private Sub cmdOpenBugForm_Click()
On Error GoTo Err_cmdOpenBugForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmBugNotes"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenBugForm_Click:
    Exit Sub

```

```

Err_cmdOpenBugForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenBugForm_Click

End Sub
Private Sub cmdOpenEditRefForm_Click()
On Error GoTo Err_cmdOpenEditRefForm_Click

    Dim stDocName As String
    Dim stLinkCriteria As String

    stDocName = "frmEditReferenceTables"
    DoCmd.OpenForm stDocName, , , stLinkCriteria

Exit_cmdOpenEditRefForm_Click:
    Exit Sub

Err_cmdOpenEditRefForm_Click:
    MsgBox Err.Description
    Resume Exit_cmdOpenEditRefForm_Click

End Sub

```

Appendix E

Context MCD Table*

ContextID	FunctionGroup	Category	ContextMCD
ST1	Kitchen	Ceramic	1894.6
ST10a	Kitchen	Ceramic	1874.2
ST10b	Kitchen	Ceramic	1835.0
ST11b	Kitchen	Ceramic	1910.0
ST11c	Kitchen	Ceramic	1824.0
ST11d	Kitchen	Ceramic	1910.0
ST12b	Kitchen	Ceramic	1910.0
ST13a	Kitchen	Ceramic	1849.2
ST13b	Kitchen	Ceramic	1910.0
ST13c	Kitchen	Ceramic	1910.0
ST14a	Kitchen	Ceramic	1920.0
ST14c	Kitchen	Ceramic	1802.5
ST15d	Kitchen	Ceramic	1788.1
ST16a	Kitchen	Ceramic	1910.0
ST16c	Kitchen	Ceramic	1840.9
ST17a	Kitchen	Ceramic	1802.5
ST17b	Kitchen	Ceramic	1910.0
ST19a	Kitchen	Ceramic	1823.0
ST19b	Kitchen	Ceramic	1910.0
ST2	Kitchen	Ceramic	1899.3
ST20b	Kitchen	Ceramic	1835.0
ST20c	Kitchen	Ceramic	1835.0
ST21a	Kitchen	Ceramic	1791.0
ST21b	Kitchen	Ceramic	1800.0
ST21c	Kitchen	Ceramic	1829.4
ST22c	Kitchen	Ceramic	1791.0
ST22d	Kitchen	Ceramic	1856.3
ST24b	Kitchen	Ceramic	1820.8
ST24c	Kitchen	Ceramic	1850.5
ST25a	Kitchen	Ceramic	1910.0
ST26a	Kitchen	Ceramic	1904.2
ST26c	Kitchen	Ceramic	1910.0
ST27b	Kitchen	Ceramic	1910.0
ST28c	Kitchen	Ceramic	1855.0
ST29c	Kitchen	Ceramic	1883.1
ST29d	Kitchen	Ceramic	1910.0
ST31b	Kitchen	Ceramic	1910.0
ST33b	Kitchen	Ceramic	1910.0
ST33c	Kitchen	Ceramic	1910.0
ST33d	Kitchen	Ceramic	1854.3
ST34a	Kitchen	Ceramic	1872.5
ST34c	Kitchen	Ceramic	1870.9
ST35a	Kitchen	Ceramic	1910.0

ST35b	Kitchen	Ceramic	1802.5
ST36b	Kitchen	Ceramic	1910.0
ST36c	Kitchen	Ceramic	1885.6
ST36d	Kitchen	Ceramic	1910.0
ST37c	Kitchen	Ceramic	1910.0
ST38a	Kitchen	Ceramic	1910.0
ST38b	Kitchen	Ceramic	1860.0
ST39b	Kitchen	Ceramic	1910.0
ST40c	Kitchen	Ceramic	1910.0
ST40d	Kitchen	Ceramic	1791.0
ST41b	Kitchen	Ceramic	1847.5
ST41c	Kitchen	Ceramic	1891.3
ST41d	Kitchen	Ceramic	1802.5
ST42a	Kitchen	Ceramic	1886.9
ST42b	Kitchen	Ceramic	1890.2
ST5a	Kitchen	Ceramic	1915.0
ST5b	Kitchen	Ceramic	1813.3
ST6a	Kitchen	Ceramic	1910.0
ST7a	Kitchen	Ceramic	1910.0
ST7b	Kitchen	Ceramic	1802.5
ST9a	Kitchen	Ceramic	1920.0
ST9b	Kitchen	Ceramic	1920.0
ST9c	Kitchen	Ceramic	1920.0
U1.1	Kitchen	Ceramic	1896.4
U1.2	Kitchen	Ceramic	1825.4
U1.3	Kitchen	Ceramic	1816.0

*At the time of publication, only the shovel test artifacts had been entered into the archaeological database, so not all test unit MCD dates are available above.

Appendix F

Artifact Density Maps

